



OFFICE OF THE COUNTY MEDICAL OFFICER OF HEALTH,

14, TEMPLE STREET, BIRMINGHAM,

September 9th, 1914.

TO THE WARWICKSHIRE COUNTY COUNCIL.

MR. CHAIRMAN, MY LORDS AND GENTLEMEN,

1. I have the honour to present my Fifteenth Annual Report as County Medical Officer of Health, and the twenty-fifth I have made to your Council on the Health of the Administrative County.
2. I propose to adopt the same system as in my last Reports, namely, to deal with the County as a whole, and then complete the Report by summarising those of the District Medical Officers of Health. In the statistics, the Birth, Death and Zymotic death-rates are calculated per 1,000 persons estimated to be living, while the infant mortality is reckoned on the number of children who died under one year of age per 1,000 registered births.

THE COUNTY AS A WHOLE.

AREA.

3. The area of the County in acres taken from the figures in the Reports of the District Medical Officers is as follows:—In the Urban Districts, 48,340, and in the Rural Districts 502,411, giving a total for the County of 550,751.

POPULATION.

4. At the Census in April, 1911, it was found that the population now included in the area was 300,913; last year it was estimated at 307,014, while this year it is estimated at 312,657, and on this population the various rates of mortality have been calculated. The population has been increased during the year, according to the estimate, by 5,643.
5. The increases are believed to have occurred in the manufacturing and mining Districts. In the Borough of Nuneaton, the population is estimated to have increased by 911. In Sutton Coldfield the increase is estimated to have been 319. In Atherstone the increase has been 406; while in Tamworth it is believed to exceed 400. In the little District of Coventry, in which the population was 582 at the Census, it was estimated to be 1,280 in 1912, while in 1913 it is estimated to have increased to 1,730. This increase of course is due to the development which has taken place in connection with the adjacent City of Coventry. In most of the other places the increase has been slight.

BIRTHS.

6. The registered Births numbered 7,557, compared with 7,118 in the previous year. Of these, 3,159 were in the Urban, and 4,398 in the Rural Districts. It will be seen therefore, that there has been a somewhat marked rise in the Birth-rate, this being 24·17, compared with 23·1 in the previous year. As there was a slight rise in 1912, this increase may be regarded as the more satisfactory.

7. In the Urban Districts the Birth-rate was 22·85, compared with 21·9 in the previous year, while in the Rural Districts it was 25·21, as compared with 24·1 in 1912.

Last year the small increase noted had occurred entirely in the Rural Districts, but I am pleased to state that the increase was common to both districts in 1913.

8. The highest rate in the Urban Districts is shown at Bulkington, where it reached the high figure of 38·5. In no other Urban District did it quite reach 30, but in the Borough of Nuneaton it was 29·4. The lowest rate was in Leamington Spa, where it was only 17·2. In Sutton Coldfield it was also low, being 19·4.
9. In the Rural Districts the highest rate was observed at Foleshill, where it was 34·7. In Coventry it was 31·7, and in Atherstone 30·5. All these are quite satisfactory rates, while in the Rugby District the rate has gone up from 25·9 in 1912, to 28·2 in the year under review. In Southam, too, the rate has risen from 24·0 to 26·2.

DEATHS.

10. Three thousand seven hundred and ninety deaths were registered in the County, namely, 1,726 in the Urban, and 2,064 in the Rural Districts. This gives us a Death-rate of 12·12, only 0·12 higher than in the previous year, and only 0·5 higher than the lowest on record in 1910.
11. In the Urban Districts the Death-rate was 12·48, and in the Rural Districts 11·77.
12. In the Urban Districts the lowest Death-rate was in the Rugby District, where it was 10·6, closely followed by Sutton Coldfield with 10·9. In all the other Districts the rate was fairly satisfactory with the exception of Bulkington which had the highest rate, namely 17·4. Bulkington occupied this invidious position in the previous year, and perhaps nothing could speak more strongly of the importance of the necessary ameliorative work being undertaken in this District to bring its sanitary condition up to a reasonable standard.
13. The year under review is the first on record in which the factors have been calculated by the Registrar General for correcting the Death-rates on an age and sex basis. Perhaps a word or two of explanation on this point may not be out of place. It is obvious that if a District contains an undue number of very aged people on the one hand, or infants on the other, its Death-rate will be abnormally high, and in order therefore to compare fairly the condition shown by the figures in the various Districts it is necessary to determine whether or not the age and sex distribution of the population conforms to the normal of the Country as a whole. As a matter of fact, this occurs in very few Districts, and a factor has now been issued by the Registrar General which will enable us to determine what the Death-rate would be supposing the constituent as regards age and sex was the same as in the Country as a whole. If we take the County as a whole we shall find that to make this correction for age and sex, it was necessary at the Census—and this is probably the same to-day—to multiply the Death-rate by ·9247, and as a result we find that the corrected Death-rate for the County is not as it would appear without this correction, viz. :—12·12, but 11·20. This puts the County statistics in a much more favourable light, and shows that our Death-rate is a very satisfactory one indeed.
14. The following table gives the rates of the various Urban and Rural Districts, uncorrected and corrected by the age and sex factors.

District.			Crude Death Rate.	Death Rate corrected for age and sex distribution.	
URBAN.					
BULKINGTON	...	...	17·4	...	14·62
KENILWORTH	...	...	13·0	...	11·46
LEAMINGTON SPA	...	...	14·2	...	11·8
NUNEATON	...	...	11·7	...	12·3
RUGBY	...	...	10·6	...	11·3
STRATFORD-ON-AVON	...	...	13·8	...	12·0
SUTTON COLDFIELD	...	...	10·99	...	10·97
WARWICK	...	...	14·9	...	12·9

District.	Crude Death Rate.	Death Rate corrected for age and sex distribution.
RURAL.		
ALCESTER	9.85	8.50
ATHIRSTONE	12.1	11.87
BRAILES	11.2	8.3
COVENTRY	6.9	7.5
FARNBOROUGH	8.09	6.52
FOLESHILL	13.0	12.7
MERIDEN	13.0	11.3
MONKS KIRBY	9.0	7.25
NUNEATON	12.5	11.2
RUGBY	14.0	12.7
SOLIHULL	9.9	9.04
SOUTHAM	13.0	10.0
STRATFORD-ON-AVON	12.9	10.3
TAMWORTH	10.2	10.3
WARWICK	9.6	8.5

ZYMOTIC DISEASES.

15. Two hundred and seventy-three Deaths were registered from the seven principal Zymotic Diseases, compared with 257 in 1912, and 452 in 1911. This gives us on the estimated population, a Zymotic Death-rate of 0.87, practically identical with that of the previous year.
16. The deaths registered were as follows:—Smallpox, 0; Measles, 58; Scarlet Fever, 25; Typhoid Fever, 9; Whooping Cough, 34; Diphtheria, 33; Diarrhœa, 114. Comparing these figures with last year's it should be noted that there has been a reduction in the deaths from Whooping Cough and Measles, but an increase in those from Diphtheria and Diarrhœa. The deaths from Scarlet Fever remain the same, and there was only 3 more deaths from Typhoid Fever than in the previous year.
17. SMALLPOX.—I can again record that not a single case of ~~Scarlet Fever~~ *Smallpox* occurred throughout the County.
18. MEASLES.—This disease produced comparatively little mortality, 58 deaths only being due to it; 21 in the Urban and 37 in the Rural Districts. I have dealt with it so often and pointed out how infectious it is before it can be diagnosed, and how readily it spreads, that I need do no more now except to state that diminution was to be expected owing to the fact that in the previous year the mortality was more marked.
19. It will be remembered that an arrangement is in force by which all Non-notifiable Diseases are notified to me either by the School Teachers or the School Attendance Officers. I find that during the year 1,722 cases of Measles were reported and most of these—in fact all but about 200—occurred in the first two quarters of the year. Judging from the cases notified from the Schools, these were almost as many as in the previous year, but it is satisfactory to note that the disease was much less virulent as the mortality was only about $\frac{1}{8}$ -ths that of the previous year.
20. In the Urban Districts the chief fatality was caused in Leamington and Warwick. In fact, out of the 21 deaths in the whole of the Urban Districts, 15 occurred in these two towns. In the Rural Districts the chief mortality was shown in Foleshill and Rugby, where 8 and 7 deaths occurred respectively. I hope that the continued teaching now afforded in the homes by the Health Visitors will be becoming effective, not so much in preventing the spread of this disease of early child life, but rather in the way of reducing the mortality which is so largely due to carelessness, the result of want of knowledge on the part of the parents.
21. SCARLET FEVER.—Scarlet Fever was again only responsible for 25 deaths. I say again, for strange to say, this was the actual figure of the previous report; 15 of these deaths occurred in the Urban and 10 in the Rural Districts; 1,214 cases as against 1,326 last year, were notified. Of these, 611 were in the Urban and 603 in the Rural Districts. In no District can it be said to have been markedly fatal. In the Borough of Nuneaton 8 deaths occurred, but in no other Urban District did the number exceed 3, while the maximum number of deaths due to it in any Rural District was 2.
22. I find that among the Urban Districts, 198 cases were notified at Nuneaton, and 169 at Sutton Coldfield. As only one death occurred at Sutton Coldfield, it will be seen how extraordinarily mild the disease has become of late, as the mortality was fractionally less than three-quarters of one per cent.

23. The total number of cases removed to Hospital was 679, rather less than in the previous year. I noted last year that isolation was much more practised in the Rural than in the Urban Districts, and the same thing is to be seen again, for whereas the number of cases in each was practically identical, the number isolated was much greater in the Rural than in the Urban.
24. I think it desirable to call attention to the work done at Nuneaton in treating patients at their homes, by what is known as the "Milne" treatment. It is the custom in this Borough for the cases to be treated at home, that is the majority, to be attended by a nurse, who reports every morning at the Health Office on the progress of the case, and in the event of any case developing complications, Dr. GRAY MAITLAND says:—"I at once communicate with the Medical man who sent in the notification, and on whom of course the responsibility of the case rests." This seems to me, as far as I understand it, to be an extremely dangerous proceeding. It would appear that the patients, when notified by the Medical attendants, are practically handed over to a nurse, who assumes responsibility until she feels that it is necessary to report that further Medical skill is desirable.
25. The "Milne" treatment consists practically in inoculation of patients with anti-septic oil. It has been very carefully examined at some of the Metropolitan Asylums Boards Hospitals and the opinion formed appears to be that it has no material value either in the cure or the prevention of the disease.
26. As far as I can understand the procedure at Nuneaton, it would appear to be extremely objectionable, as practically the patient is left to an unqualified person, namely a nurse, unless in her opinion it is necessary to report to the Health Office that the case is developing complications, when the Medical Practitioner who notified, is appealed to.
27. I must call attention to the fact too, that on this year's results the working is not in itself satisfactory. In the County as a whole, out of 1,214 cases, 25 deaths occurred, giving a mortality of 2 per cent., that is including Nuneaton, but in the Borough of Nuneaton alone, the mortality is 4 per cent. Though these are facts I do not want too much to be made of them, because the number of cases dealt with is comparatively small, and one year is a short period, but I do think it desirable to call attention to the fact that I consider the Town Council are undertaking a great liability in appointing and paying a nurse to practically take charge of cases notified to them by practitioners, rather than, if they accept responsibility for the case at all, putting them in charge of a registered Medical Practitioner.
28. DIPHTHERIA.—This disease has shown more prevalence than in the previous year, 312 cases being notified, namely, 134 in the Urban and 178 in the Rural Districts. The deaths registered were 33, namely 13 in the Urban and 20 in the Rural Districts. The Death-rate from it was 0.10 per cent., while in the previous year it was 0.06 per cent., so that both in notifications and deaths, Diphtheria has shown an increase.
29. Among the Urban Districts Nuneaton was the only one that showed any marked mortality, 7 deaths occurring here out of the 12 in the whole of the Districts, and 34 cases were notified. The mortality therefore appears to have been high. I note the remarks of the Medical Officer of Health in my Summary of his Report. He urges the great importance of utilizing the facilities now offered by the County for the examination of swabs from throats, and points out that of the 34 cases notified, swabs were taken in 14 cases, the majority of which he took himself at Schools.
30. Among the Rural Districts Foleshill showed the largest mortality, 8 deaths being registered, and 33 cases notified. The disease appears to have been especially prevalent among children of school age in the Parish of Foleshill. School closure was resorted to, and several cases were removed to the Coventry and Warwickshire Hospital for the operation of tracheotomy.
31. I feel it only right again to call attention to the fact that though Diphtheria is a very fatal disease, its fatality can be largely reduced by early treatment with anti-toxin. In many cases it is utterly impossible to definitely state that certain cases are real Diphtheria, without a bacterial examination. The County Council, as I have said before, afford this free of cost to all practitioners. Anti-toxin is supplied free by most of the Sanitary Authorities, and what is required to further reduce the mortality is a utilization by Medical Attendants of the facilities within their reach.

32. **WHOOPING COUGH.**—This disease was responsible for 34 deaths, compared with 74 and 48 in the two previous years. Of these, 15 occurred in the Urban and 19 in the Rural Districts. I have before pointed out in previous reports that Whooping Cough, though a very fatal disease of infant life, is one with which very little can be done at the present time. The majority of deaths occur in infants, or children under two years of age, and can only be prevented by an increased knowledge of hygiene among the mothers. Undoubtedly this knowledge is spreading, and in the future, as a result of our home visiting, much better results may be expected.
33. **FEVER, INCLUDING TYPHOID AND OTHER CONTINUED FEVERS.**—Though there has been a slight rise in the number of deaths, our figure of 9 is quite satisfactory. Three of these deaths occurred in the Urban and 6 in the Rural Districts.
34. Looking to the notifications we find that 73 cases were reported, an increase on the previous year, this, however, was largely due to the water-borne outbreak which occurred at Kenilworth at the end of the year, in which 40 cases occurred up to December 31st. This outbreak is dealt with in the Report of Dr. TANGYE, and is given fairly fully in my Summary, and all I need say here is that it was conclusively proved that the outbreak was due to the accidental pollution of the water supply with matters from the stream into which some sewage had access.
35. I need only further say about this at the present time, that there has hardly been a case where an outbreak has been dealt with more vigorously and scientifically than in this instance, with the result that not only was the cause of it discovered, but that measures have been taken which should in future prevent not only outbreaks, but by the information afforded to other Sanitary Authorities permit them also to safeguard the people under their care.
36. **DIARRHŒA.**—114 deaths were registered, compared with 53 in 1912, and 214 in 1911. I have frequently pointed out that the question of Diarrhœa mortality is largely a climatic one, and I need not do no more now than state that the pleasant and warm summer of 1913 pre-disposed to outbreaks of the disease. It is extremely satisfactory however to feel that the work of our Sanitary Authorities, both in the improvement of water supplies, drainage and housing conditions, has done a great deal to minimise outbreaks of this disease, and that even more has been done, and is being done, by that system of carrying hygiene to the home, which in most large towns, and some Counties, such as Warwickshire, in giving information to the people that Infantile Diarrhœa is almost entirely in their own hands, and can be largely prevented by having a regard to diet on the one hand, and to cleanliness of house, soil and person, on the other.
37. **PHTHISIS AND OTHER TUBERCULAR DISEASES.**—One hundred and eighty-three deaths were registered from Phthisis, and 84 from other forms of Tuberculous Disease. It will thus be seen that the figures are slightly lower than in the previous year, although the population has increased. In other words, I can again report a diminished Death-rate from Phthisis, though last year was, as I showed, the lowest then recorded. The figures are so interesting that I will again append a table showing the Phthisis Death-rates from the date of the formation of the County Council.
38. I find that the Phthisis Death-rates have been as follows:—

1889	...	...	1.14
1890	...	...	1.10
1891	...	...	1.09
1892	...	...	1.06
1893	...	...	1.06
1894	...	...	1.06
1895	...	...	1.18
1896	...	...	0.94
1897	...	...	0.99
1898	...	...	0.97
1899	...	...	1.03
1900	...	...	0.99
1901	...	...	0.81
1902	...	...	0.66
1903	...	...	0.91
1904	...	...	0.80
1905	...	...	0.72
1906	...	...	0.80
1907	...	...	0.78
1908	...	...	0.83
1909	...	...	0.77
1910	...	...	0.80
1911	...	...	0.77
1912	...	...	0.59
1913	...	...	0.58

39. It will be remembered that I pointed out last year that the falling off in the Death-rate had taken place almost entirely in the last ten years. I wish again to accentuate this fact.
40. I dealt in my Report for 1912 with the arrangements which have been made owing to the Notification of Tuberculosis, for dealing with the cases throughout the County by my Staff of Health Visitors. The arrangement was continued throughout the year and practically every notified case of Tuberculosis was visited by a Woman Health Visitor, who not only obtained information which was extremely useful afterwards for purposes of treatment, but advised patients and their friends on the best methods of preventing the spread of the disease to other inmates of the house.
41. During the year 519 cases of Phthisis were notified, 229 in the Urban Districts and 290 in the Rural Districts, while in addition, 221 cases of other forms of Tuberculosis were notified.
42. During the year much good work was done in bringing to fruition the County Council scheme I had previously drawn up for treating Insured and Un-Insured persons found to be tuberculous in the County. At the time of writing a Joint Committee has been formed of members of the County and the City of Coventry, and applications for the post of Tuberculosis Officer have been invited. In 1913 however—except for the extension of home visiting—no further work was done under County Council auspices, but the Insurance Committee of the County, who were good enough to ask me to act as their Medical Adviser, dealt in the most liberal spirit with applicants for treatment. They had available during the greater part of the year a number of beds, approaching 40, which were generally well filled with Insured persons or dependants, so that not only were all Insured persons in the County who made application dealt with, but a large proportion of others who were dependants on Insured persons also received help and treatment.
43. I find that altogether the Health Visitors dealt with 652 cases. They made 560 first visits and 797 other visits. No less than 141 persons—Insured and Dependants—were treated in Sanatoria, while 161 received Domiciliary treatment. The Officers of the District Councils co-operated very well indeed with the efforts of the County Staff, so much so that the disinfectants were provided at the request of the Health Visitors in 265 cases, and sputum flasks provided in 165 cases, while as the result of representations made in 54 cases was the ventilation to houses and rooms improved. In addition to this, 57 outdoor shelters were provided, either by the Local Authorities or the Insurance Committee. Of the cases notified, 92 were not visited. Of these, 19 could not be traced, 21 were in Hospital, Infirmary or Sanatorium, and in the case of all the others, requests were made at the time of notification that no visit should be made.
44. In the Appendix will be found a copy of Reports made by me when the Scheme for dealing with Tuberculosis as a whole was first considered, and I have good reason to hope that before the next Report on the Health of the County is written, this scheme will be so far in operation as to be of great advantage to all concerned.
45. In two respects little has been done for dealing with Tuberculosis. I refer to arrangements which might be made for dealing with ill-nourished Tuberculous School Children, by means of outdoor Schools or otherwise. I am sure that the time is coming when it will be acknowledged to be an economical procedure to deal with these children as early as possible, in order that their lives may be made more serviceable to the community and happier to themselves. The difficulties in Counties are immense. In many of our large Cities Out-Door Schools have been established, and I cannot believe that it is past the wit of man for arrangements which have been found advantageous under Urban conditions, to be given to those, who in this respect at least, have the misfortune to dwell in Rural Districts.
46. The other point to which I would refer is the suppression of milk markedly Tuberculous. While I believe it to be a matter of supreme importance that milk should be made as cheap and available to children and infants as possible, yet I think it is equally important that the necessary steps be taken to prevent as far as possible the dissemination of Tuberculosis in this way. I have before stated that I think definite steps should be taken to discover, not sporadically but continually, what milk going into the County or produced in it, is Tuberculous, and the necessary steps should be taken as far as possible to reduce the quantity and limit the risk of infection. We have promises at the present time of a Milk and Dairy Bill which will strengthen the powers of the Local Authorities, and will do something to this end; but I am not particularly sanguine that much will be achieved in this way, as in so many other respects in connection with hygiene, I believe rather in educating producer and consumer, the one to an appreciation of his duties to the community, and the other to an understanding of the conditions necessary for safe-guarding themselves and their families against the disease.

47. Let me again in conclusion, in dealing with this subject, say how strongly I feel that the true method of getting rid of Consumption as a National scourge, is prevention rather than cure. The comfort and happiness of patients should be ministered to as far as circumstances permit, but at the same time it should not be forgotten that the method of solving the Tuberculosis problem will be by learning how to prevent rather than how to cure, and taking advantage to the full of the information as it comes to hand.
48. CANCER.—For the first time for some years I can record a stay in the rising rates of Cancer and Malignant Disease. The number of deaths registered in 1913 was 321, compared with 334 in the previous year. The Death-rate has gone down from 1.08 to 1.02. The Districts which show the greatest number of Cancer deaths are, among the Urban Districts Leamington and Nuneaton, Leamington particularly having a high rate. In the Rural Districts the highest Death-rates are observed in Rugby and Stratford-on-Avon. I have before pointed out in connection with the high Death-rate from Cancer in Leamington, that there is a large collection in it of elderly people. Cancer is a disease as is well known, of later life, and it is obvious therefore that if a District contains a particularly large number of aged people, the Death-rate from Cancer must of necessity be high.
49. Much is being done at the present time to elucidate the cause of this terrible disease and to find a remedy if possible. Up to date one cannot chronicle that much advance has been made, though an enormous number of useful facts have been discovered. During the last few days the Report of the Committee dealing with the matter has been issued, and it is worthy of record that one of the points laid down by the Commission is that there is no evidence to prove what is a matter of faith among many people, that Cancer is associated with certain houses. The careful enquiries made tend to show that there is no evidence at all confirming this impression. This alone is an important matter, as it should remove the commonly existing impression that the occupation of a house in which a person or persons have died from Cancer is liable to lead to the disease in others.
50. INFLUENZA.—The number of deaths registered from Influenza was 33, exactly the same as in the previous year, and practically the same as in 1911.
51. DISEASES OF THE RESPIRATORY ORGANS.—Under this head 256 deaths are set down to Pneumonia, 239 to Bronchitis, and 49 to other diseases of the Respiratory Organs. The figure for Pneumonia is less than that for the previous year, but those for Bronchitis and other diseases show a slight increase.

INFANT MORTALITY. |

52. Having regard to the weather experienced in 1913, it gives me much pleasure to report what, under the circumstances, must be considered a very satisfactory state of affairs, as the rate of Infant Mortality for 1913 was 88 per 1,000 registered births. It is true that this was a little higher than in the previous year when it was only 79, but considering, as I have said before, the pleasant and warm summer we experienced, I consider this rate is quite satisfactory.
53. In the Urban Districts the rate was 88, and in the Rural Districts 89.
54. The highest rate among the Urban Districts was shown in Bulkington where it reached the figure of 150, the only other figure exceeding 100 being in the Borough of Nuneaton, where it was 104. The lowest rate in the Urban Districts was found at Stratford-on-Avon, where it was only 40, while in Kenilworth and Sutton Coldfield it did not exceed 80.
55. In the Rural Districts the highest figure appears in Nuneaton, where it reached the appalling total for a Rural District of 172. In the Meriden District the figure of 121 was reached, but the only two other figures exceeding 100 were in Coventry, where it was 109, and in Rugby, 105. In the majority of other Districts the rates were quite satisfactory, the lowest being observed in the small district of Farnborough, where it was 41, closely followed by Brailes with a rate of 49. In Brailes it was very excellent, last year being only 34. This is the third year that the Nuneaton Rural District has had the highest rate of Infant Mortality. Though a small District it is largely inhabited by miners, owing to the development of the mining area, and no doubt at the present time much good would result if more time could be expended in this District in dealing with the children in their homes, and advising on diet and general treatment.
56. It is with great pleasure that I can report a still further advance in the excellent work undertaken by the County to deal with infant welfare. Last year the total number of visits paid to infants was 6,665, compared with 3,536 in 1912. The number of first

visits made to infants was 4,702, compared with 3,178, a very marked increase and indicative of a large amount of extra work. Of these 4,702 infants visited, I find that at first 3,691 were breast fed, 429 partly breast fed, and 582 entirely bottle fed. One hundred and seventy-three were described as "improperly fed." It will be seen that these figures show that at the first visit, 78 per cent. of all babies visited in Warwickshire were breast fed, and looking at the proportion visited there is reason to believe that this figure gives a fair statement of the case.

57. I have also received information as to the type of bottle in use for feeding, and here again I am able to report that conditions are, on the whole, satisfactory, and much better than before what I may term the Health Visitors era. I find that 526 boat bottles were used compared with 307 long tube bottles. Within the last week or two of the time of writing, a circular has been issued by the Birmingham Health Committee, asking co-operation of chemists in the supply of suitable boat-shaped bottles for infants, and the suppression as far as possible of the death-dealing long tube variety. It may be remembered that some years ago I obtained the co-operation of Sir Thomas Barelay to this end, and I have reason to believe that much good has resulted therefrom. The Chemists can give material aid in this matter, and I have every hope and confidence that on further consideration they will even take stronger steps to dissuade the purchaser from purchasing long tube bottles with all their attendant evils.

58. Referring also to "Comforters," I regret that I cannot speak more favourably of the use, or perhaps I should say the misuse, of that wretched article known as the "dummy" or "comforter." In 2,214 cases however, the "dummy" was not used, which I think marks progress compared with the general use of it a few years ago.

59. The record, too, as regards sleeping cots is also satisfactory, no less than 1,186 being found to be in use, compared with 706 in 1912 and 348 in 1911, though it must be borne in mind that the number of cases visited was greater.

60. In no respect, perhaps, have better results been shown than in the case of clothing. In only 46 infants were babies described as badly clothed. In 2,646 instances woollen clothing was in use, and in 1,329 cases both woollen and cotton, thus leaving only 727 cases where cotton clothing was used entirely.

61. As regards the health of infants, when first visited, out of the 4,702, 4,153 were described as in good health, and in only 38 instances were babies found to be wasting, and in 31 cases neglected. Last year, though the number of infants was less, the number of wasting babies found was 74—more than double.

62. In 3,873 cases the health of mothers was described as good, and in only 178 as bad. In 68 instances mothers had been employed in factories before the birth of the child, and in 24 cases afterwards, while in 66 cases charring was undertaken, but it will be observed with satisfaction that in the great majority of instances, the mothers of the County who were visited were only engaged in domestic work before and after childbirth.

63. In 3,888 cases housing conditions were described as good; in 661 fair, and in only 351 cases were the homes described as dirty. Probably nothing gives a better idea of the value of the work of the Health Visitors than the improved condition of the houses, and I have good reason to believe that in many instances, even when houses have not been visited, the view that such a visit may occur at any time, acts as a stimulus, and therefore, even by their presence in a district, good of a certain kind is effected. In 139 cases defects were found of such a kind as to render it desirable for reports to be made to the Sanitary Authorities.

64. To give a better insight into the work I quote a few instances of Reports made to me by District Health Visitors.

65. MISS BROWN, in the Solihull District, says:—"I am glad to be able to say that the improvement in the condition of the infants reported last year, with regard to clothing and provision of boat bottles, instead of the insanitary long tube ones, has kept up again this year. In only one case could I say the child was badly clothed, and in 171 out of 215, the babies were clothed extremely well. Out of 75 bottle-fed babies, only 9 long tube bottles were used, and of these, 4 were discarded after my visit, for the boat-shaped. Two I was unable to re-visit so cannot report upon, leaving only three that I know were persistently used. Two of these were twins, and as the mother had six other children under school age, and a delicate husband, I felt that, under the circumstances, one could not say very much.

"In looking over the year's infant work I am astonished at the comparatively few cases of deliberate neglect that one finds now-a-days. In my district the babies are treated 'not wisely, but too well.' Where errors exist, it is that they are over-fed, over-clothed, over-nursed, and kept too warm. In the majority of cases the parents seem to have no idea of the sterner side of parenthood which knows how to say "no" and mean "no," when the child's future welfare is concerned, and which is so absolutely necessary in the training of a child to form good habits. Rather than let baby cry, a mother will nurse and rock it until she is tired to death, feed it, stuff a comforter in its mouth, or indulge it in any possible way that will quieten it for a few minutes. It is surprising how early a baby learns to recognise its mother's weakness in this way, and it is a very common thing to find a baby (who is in a perfectly healthy condition) screaming so that one cannot hear oneself speak, from pure temper. The minute it is picked up it begins to chuckle and smile at its achievement. The most disheartening part of it all is that the mothers are perfectly well aware of the child's naughtiness, but are so proud of it being so 'knowing,' they actually encourage it, until the child becomes a regular nuisance to itself and everyone else.

"It is unsatisfactory to know that in many cases where a comforter is not used, the fact is due to some inborn good sense of the baby, rather than of the mother, and she will tell me with a most unjust pride that baby does not have a comforter because 'it won't take to it.' The other side where the mother will not give it is much too rare.

"During the winter it is extremely difficult to persuade mothers to get the babies out regularly, though I think great progress has been made in this direction considering the prejudice that has had to be overcome about it. A grandmother told me recently 'In my time you'd have almost been taken up for murder, if you had taken your baby out in cold days like these,' and I suppose public opinion in those days would have made life unbearable for anyone who exposed a baby to the open air.

"One is a little handicapped in giving advice on this subject, by having to be cautious, for although on the one hand, there is still the mother who considers fresh air an actually dangerous thing for a baby, on the other, many mothers are extremely injudicious in the way they let the child take its airing, and it is extraordinary how frequently a mother who has kept her baby literally stewing in front of a hot fire all day, will, on the smallest provocation (such as a band or a neighbour outside) pick it up and take it out into the street, and keep it out for some time, with no extra covering at all, however cold the day may be.

"Between the 'too careful' and the 'too careless' it is not surprising when one makes a round of infant visits after a sudden onset of cold weather, that one finds almost every child suffering from Bronchitis in a more or less severe form, and considering the changeable weather we have, this is a very unsatisfactory state of affairs."

66. Miss HOUGHTON, in the Tamworth and Atherstone District, whose loss to the County is so much to be deplored, reports as follows:—"Owing to the fact that during about eight months of the year I had the help of Miss GREEN, we were able to get a far larger number of infants visited than in previous years, in fact, during the time she was with me, practically every infant whose birth was notified to me and whose parents were in a position to make a visit seem advisable, was looked up *within a week or two of its birth*. For the same reason we were able to do proportionately more re-visiting, though I still feel that from the point of view of really influencing the health conditions of individual infants a great deal of our work is practically thrown away, because it is absolutely impossible, owing to the constant extension of our field of work to follow up the advice given and influence gained at the first visit by keeping in touch with the mothers, even in those cases where it is most needed.

"The increasing frequency of cases in which one's advice is sought—one is called in in passing, or a message is received that a visit would be welcomed—is evidence that the prejudice against our 'interference' is dying out. In one case that I have come across, I fear incurable spinal trouble in a child of nearly two, which might have been prevented had the parents been induced to seek and follow medical advice earlier, the mother has several times expressed bitter regret that I had not visited her sooner. The omission to do so was due solely to lack of time.

"The figures of my report compare, on the whole, favourably with those of the previous year. Among the hand-fed infants I find a most satisfactory increase in the use of the boat-shaped bottle, and it is gratifying to find that more than half the infants visited were being brought up without comforters.

"The custom of allowing the infant to sleep in a cot or cradle does not, unfortunately, seem to be on the increase. The old prejudice that it is cruel to deprive the infant of the warmth it can derive from its parents during the night is hard to kill, just because it appeals to the sentiments, though I came across one pleasing instance of a woman who, having merely read in the local paper an account of a lecture given by me in another village, procured a banana crate and made it into a beautiful little cradle for her first-born.

"I am pleased to say that I have only come across two cases where infants were being neglected. In one of these the mother is so mentally defective that much improvement cannot be hoped for, in the other, I have by frequent visiting and persuasion, induced the mother to take much better care of her infant, and of her home generally, than she had done in the past."

67. MISS PAKES gives most of her time to the Nuneaton Borough, and she reports:—
"Too early feeding on solids, is a permanent fault amongst the mothers in this District, that is, giving bits of what the parents are having; causing, in many cases, harm to the infant."

"A considerable number of those mothers who breast-feed, are found continuing to suckle over a year, and in some cases, for as long as a year and 8 months."

"It is disappointing to find so few mothers willing to discard the 'dummy'; although for so long they have been warned of the danger of dummies."

"Cots for the babies, it is good to report, are on the increase. Many mothers using baskets or boxes till a cot could be purchased later."

68. MISS CHORLTON AND MISS BAKER had charge of the Foleshill District during the year, and Miss Baker reports to me as follows:—

"*General Conditions.*—The general condition of the infants was, as usual, good; 628 were considered satisfactory, 166 unsatisfactory, the greater number of these having only temporary ailments, as thrush and colds. Seven wasting babies were found, and one child was neglected. It was ill on first being visited, and the Doctor sent for, but it died in three days; the eighth child the mother has lost out of twelve. All cases of ophthalmia and discharging eyes have done well under treatment but one. That, though attending Hospital, wasted and died. One tiny, seven months baby was put into a home-made incubator at once, by the midwife's advice, and fed on albulactin. I visited it several times, and it thrived well till the end of the year. Unfortunately, it then caught Whooping Cough and died. Credit was due to the parents for the way in which they took care of it."

"*Feeding.*—644 infants, or $\frac{4}{5}$ -ths were breast-fed entirely, a very large proportion. Of the bottle babies, 72 had boat bottles, and 28 long tubes; this being a much greater percentage of boat bottles than last year's. All mothers know now that boat bottles are the best, and it is chiefly those who have always used long-tubes and will not change, or who will not give the time to holding the boat bottles who persist in their use. A number of breast-fed infants are fed too often, but the number is decreasing, and two-hourly feeds are recognised as the correct method."

"*Cots.*—More than one quarter of the babies sleep in cots. This includes those sleeping in baskets, boxes and prams. This is against one-sixth last year. The lack of space in many bedrooms, and the fact that the father is often, sometimes always on night work, are factors against the use of cots."

"*Dummies.*—Nearly half the babies were without dummies, also an improvement on last year."

"*Revisits.*—117 babies were re-visited, some of them several times. These were chiefly those which were found unsatisfactory on first visiting; 61 were still breast-fed entirely, 35 artificially, and 21 breast and artificially fed. Instructions were fully carried out in 41 cases, partly in 75, and not at all in 23."

69. MISS UNDERWOOD in the Warwick and Kenilworth District says:—"In the early part of the year, many of the babies were visited by Miss Green, who was helping me at that time. This meant, fortunately, that more re-visits than are usually possible were paid to cases appearing to require such. I think we may safely conclude the percentage of 'improperly fed' infants is steadily on the decrease (13·8 per cent. in 1912 to 4·3 per cent. in 1913)—as is also that of 'badly clothed' babies. But still 'all cotton' clothing is found more frequently than one likes to see in Warwick Urban, in which particularly Kenilworth compares very favourably. The most common difficulty is to overcome the mother's dislike to the baby sleeping separate from herself, most of them being firmly convinced that the child would not be warm enough in a cot or cradle, at any rate for the first three months of life. It will be seen that the long tubed bottle 'dies hard,' especially perhaps in the villages. I am afraid it is more often a matter of prejudice on the mother's part than the probable additional 2d. required for a boat-shaped one. Re-visits are not always made on the baby's account, they are sometimes to see if the mother's health has improved, or if the house is in a more cleanly condition, etc. Many mothers have been very grateful for the 'feeding directions' pamphlets, especially those who were bringing up the baby on the bottle."

70. MISS FITZMAURICE, who gives her time to the Rugby Urban District reports as follows:—
 “Fifteen infants were still-born; seven died within a week of birth; one mother died of Puerperal Fever; one infant born with a very unusually deformed palate and nose has been successfully operated upon in Hospital and is now doing well; one infant was a bad case of Spina Bifida; and one case of severe Ophthalmia occurred which has been cured in time to save the sight of the child.

“The mothers begin to take an intelligent interest in infant feeding and rearing, and the Babies Welcome and School for Mothers now started in my District is a great help and has a good educational influence. It is not often that one meets the baby ‘who has all that we eat,’ though one particularly nice baby was shown to me, and who apparently thrived, upon the very mixed diet; the trouble comes when the baby succumbs to the first illness and the parents are hard to convince that improper feeding has often been the cause of death.”

71. MISS WHEATLEY, in the Southam and Stratford-on-Avon District, says:—“Most of the infants visited were breast-fed, and all but a few were in a thriving condition. I have very little trouble in persuading the mothers to breast-feed them, but *in some districts where milk is very scarce, they often tell me they would not trouble to nurse them if they could get a regular supply of milk.* Very few of the mothers work out, except in the fruit season, when they usually take the infant with them to be fed. Those who work as charwomen at farm houses, always take the infant with them, so that breast-feeding is commoner among the workers than one would imagine.

“One infant artificially fed, was ailing, and the mother complained of the quality of the milk supplied. I reported this to the Sanitary Inspector, who said a sample of it would be taken for analysis.

“Two infants with hare lip and cleft palate, and very feeble from birth, have greatly improved, the parents being persuaded to take them to Hospital for operation. I still find too many long tube bottles and comforters in use, and in the case of the partly artificially fed infants, oatmeal, scalded and strained, is a favourite food. More cots are being used than formerly, and the remarks of the Coroner at a recent inquest in Stratford are having a good effect.”

72. MISS ABBOTT, in the Rugby Rural District, among other things, reports to me as follows:—“The health of mothers and babies I find satisfactory, there is now more of the open window to be seen. With regard to the cot, it is either occupied already by the ex-baby, or there is no space in the small bedrooms for an extra piece of furniture. One mother of 15 children thought what was good enough for number one was good enough for number 15, when asked why she would not use a cot for her baby. Another mother who has about 16s. a week to live upon, and who cannot breast-feed her baby, spends 3/6 a week on it; the exception I am afraid, not the rule, to spend so much on a three weeks old baby. I regret there are still a few mothers who cling to long-tubed bottles; one mother after repeated visits gave up this bottle, she has a large family, and for this reason it is all the more creditable to give up what she thought a very convenient article.

“I find some infants are taking the ‘law into their own hands’ and refusing the comforter! Until this ‘Strike’ becomes general the comforter will remain with us.

“There is a dearth of trained Nurses in some of the smaller villages, with the result that mother and infant have to suffer for lack of proper attention during the lying-in period. They are dependant upon the more or less ignorant handy-woman, *i.e.*, between the Doctor’s visits.”

73. MRS. GARSIDE, in the Aleester District, reports:—“The results obtained from the visitation of infants in this District are, on the whole, encouraging. It is only in those cases where the mothers work in factories that Infants are deliberately deprived of their natural food. There are, however, many instances, in which no efforts are made by the mother to arrange her diet so as to enable her to continue breast-feeding. One only occasionally comes across the long-tubed bottle, the excuse given for its use is, either that it costs less than the boat-shaped bottle, or that the baby does not require attention when taking it. An occasional visit to Local Chemists and Grocers to advise them to push the sale of the boat bottle is often fruitful of good results. Over 50 per cent. of the infants visited have comforters. Some mothers will discontinue the use of the Comforter when one has carefully explained to them the harmful results which are likely to accrue therefrom. For others who cannot or will not reason one can only speak from personal experience of such matters, this is often effective, especially with those mothers who think we have not practised what we preached. One father with whom I had a long discussion on comforters, considered that they could not be so very injurious, or the sale of them would be prohibited by Act of Parliament. Would that there was such legislation, not only to prohibit the sale of comforters, but long-tubed bottles also!

"The method of clothing is becoming much more rational, but some mothers have still to be reminded that 'dumplings cool more quickly than puddings.'

"The combined duties of Infant Visitor, School Nurse and Inspector of Midwives, are particularly advantageous in this respect, for through the Midwives one can advise expectant mothers what garments to prepare, and through the health talks with the co-operation of the teachers, one can teach the girls how to make suitable garments for the baby brothers and sisters."

74. These extracts from Reports which I have quoted give a very good insight into the puzzles met, and the work effected in some of the Districts of the County. They are useful, too, as giving the opinion of some of our most experienced Health Visitors, who have been some years at the work, and also the impressions formed by new members of the Staff, who come from somewhat similar duties elsewhere.

75. It is agreed by all that the County of Warwick has done much in endeavouring to solve one of the most pressing hygienic problems of the age, namely, that of dealing with infant mortality. Those who have had long experience of the work have assured themselves that this is almost entirely a question of education. That being so, it may again be said that it further resolves itself into a question of effort and money. Personally I desire to express the opinion that great as has been the reduction in infant mortality since the era of Domestic Hygiene was inaugurated, much further good could be done almost immediately if the public demanded, as the result of enlightenment on the subject, that further efforts should be made to deal with this problem. I put it in this way because I am strongly of opinion that it is extremely difficult for constituted authority to advance far ahead of public opinion, and to my mind, the great advance which has been made of late years, has been owing to the education in hygiene which the public has received, and its demand therefore for the completion of the work, which up to now has only been partial. It would indeed be surprising, with such a record as I have given above, if our rate of Infant Mortality did not show a fairly good result.

76. I do not for one moment suggest that what has been done has been the result only of our Women Health Workers. Many other factors of course are concerned, but from the day when the Council determined to appoint their first Woman Health Visitor, the work has been increased in snow-ball fashion, and some of the latest results of this have been the establishment at Rugby and Alcester of Babies Welcomes and Schools for Mothers, all of which are effective in the crusade for the saving of infant life.

ISOLATION HOSPITAL ACCOMMODATION.

77. I have for many years dealt with the work done by these Institutions in the County, and I can at once say that, speaking generally, Warwickshire is very well supplied with such Institutions. Arrangements have been made in every District for the utilization of Smallpox Hospitals, and with the exception of the small Farnborough Rural District, everyone has accommodation for Fever, etc. I understand that improvements have been effected in the Harborough Magna Hospital, which is used by the Rugby Urban, Rugby Rural, and Monks Kirby Districts. This Hospital now, I understand, has 16 beds in 4 wards, and the Staff accommodation is being enlarged.

78. During the year I find that no less than 859 cases were isolated, namely, Diphtheria, 125; Erysipelas, 3; Scarlet Fever, 679; Typhoid Fever, 40; Pulmonary Tuberculosis, 12.

79. The value of Infectious Hospitals cannot be overstated if they are used rationally. It has often been suggested that these Institutions have failed in their purpose as particularly in our large towns where isolation is most complete, there is very little falling off in the incidence of certain diseases, particularly Scarlet Fever. This, in my opinion, does not in any way show that Hospitals are not useful. It shows that, firstly, probably we do not know all the factors concerned in the spread of disease, and secondly, that in the past overcrowding has often been tolerated in epidemic times, and much of the good which would have otherwise been effected has been lost. I have long laid it down that indiscriminate isolation of every case that can be compelled to go into Hospital is a mistake. The expense caused is unwarranted, and no special good to public health is effected. True, the nursing at the Institutions no doubt is better, and in many instances the ordinary avocations of parents and others of the family may be carried on while infection lasts in the patient. At the same time, I believe that the main use of Isolation Hospitals is for the reception of patients who cannot get proper lodging. If infectious disease occurs in houses letting lodgings, in common lodging houses, in places where food is prepared, or clothes or similar materials dealt with, it is essential that isolation should be available, but in these days when it is necessary to consider what resources are available for dealing with the complex problems of public health, an undue and unnecessary expenditure in any direction must be very much deprecated.

80. Difficulties arise sometimes because patients, and even Medical Practitioners, demand that cases should be taken from home and dealt with in Hospital. Personally I do not acknowledge the right of any such demand. Isolation is effected for public health purposes, and whether or not particular patients should be isolated is one for the discretion of the Officer responsible for the maintenance of public health in the District.

81. I am glad to be able to report that in the case both of the Nuneaton Borough Council's Infectious Hospital at Tuttle Hill, and at the Joint Small Pox Hospital at Brameote, utilization has been made during the year of the Institutions for the purpose of dealing temporarily with Phthisical patients. About five and twenty patients have been dealt with in this way during the year, and not only have these Institutions, which in the past have not been used owing to the happy fact that the County has been free from Smallpox, been giving a return to the Authorities who own them, but they are at the same time doing good work in receiving patients suffering from Tuberculosis, for instruction and treatment. When the complete County Scheme is in operation, no doubt one or more of these Hospitals will be used for the purpose of what has been termed in the Astor Report 'Hospital Beds,' that is, they will be used for chronic or advanced cases of Consumption, which, for many reasons, it is undesirable to send to the main Sanatorium.

RIVER POLLUTION.

82. The good work which from the first Warwickshire has effected as regards the prevention of serious pollution of streams has been continued, and I may say, extended during the year. In no case do I think we can point to any more serious pollution, though population, particularly at certain centres, is increasing, and potentialities for increased pollution therefore exist. The chief Rivers of the County are the Tame, the Avon, the Anker, the Arrow, the Cole, the Blythe, and the Bourne, each of these, of course, having certain tributaries.

83. THE TAME.—This River, a small one at the best, receives sewage from its source to its discharge into the Trent. It rises in Staffordshire and does, and needs must, receive the more or less purified sewage of the Black Country towns. The following particulars furnished to me by DR. GEORGE REID, County Medical Officer of Health for Staffordshire, give in detail what has been done in that County to minimize sewage pollution during the year:—

“TIPTON.—The effluents from the new works continue to be satisfactory. The house connections are proceeding, and the Local Surveyor in a paper read in May last at these works, to a Meeting of Sewage Works Managers, made the following statement:—‘This work of connecting is now in hand and about 1,600 connections have been made from the sewers to the boundaries of the various properties. This part of the work has been done by and at the expense of the Council. Where any connection had been in existence to one of the old sewers, it is picked up into these new connections by our men and at the cost of the Council. I should say that at the present time there are about 3,000 houses connected with the works (representing a population of 12,100), and only a short time will elapse before the whole of the connections in the area prescribed will be connected up.’

“OLDBURY.—The sewage is being fully treated at these works and good quality effluents are being discharged.

“BILSTON.—The new works are continuing to yield effluents of a high standard of purity.

“DARLASTON.—There has been some delay in the commencement of these works, and I have already communicated with the Local Authority. Intimation has since been received that a loan of £15,570 for carrying out the work has been sanctioned by the Local Government Board.

“SHORT HEATH.—A new small disposal plant at Clarke's Lane has been completed this year, dealing with the south end of the district, by Messrs. Dodd & Dodd, Engineers, at a cost of £1,000. This will prevent any further direct pollution to the Tame from this District.

“WALSALL.—These large works are now completed, and the sewage is being fully treated since May 1st with satisfactory results.

“WEDNESBURY.—Position the same as last year and quite satisfactory.

“WILLENHALL.—There has been some delay here due to bad weather. I have recently had communication with the Surveyor on the subject, and he informs me that pressure has been brought to bear on the Contractors, and that the new tanks were brought into operation at once pending the filling of the filters.

“WEST BROMWICH (C.B.)—I am in communication with this Authority as to re-modelling the works.

84. Directly the Tame reaches Warwickshire it receives the enormous amount of effluent from the Birmingham, Tame and Rea District Drainage Board. These works are, I believe, the largest in the world, and it says much for the efficient way they are now carried on, that complaints of late years as to the condition of the Tame have been markedly less than heretofore.

85. In reply to my enquiries, Mr. JOHN D. WATSON, the Engineer to the Board, reports as follows :—

“It gives me pleasure to state that the Board have increased their Works very considerably during the past year.

“First with regard to the *Tame Valley*. You will be interested to learn that the block of seven acres of bacteria beds which has been in course of construction during the past two years is now completed and at work, notwithstanding the fact that the corresponding Silt tanks have not yet been constructed. The tank effluent which is now obtained as the result of the treatment at Saltley is so good that this is perfectly feasible.

“The completion of the seven acre block brings up our total area of oxidising beds available for the dry weather flow of sewage to 41 acres, six feet deep.

“The Storm Water Filters have also been increased by an area of two acres. As you are aware, these beds are used when there is an excess flow due to rainfall, but they are available for use during the ‘peak of the load’ which occurs in the middle of the week.

“Probably the most important feature of the year’s work has been the large addition to the capacity of the Sludge Digestion Tanks—an increase of more than 50 per cent.

“The more experience I have in matters of sewage treatment, the more am I convinced that the initial part of the work is of the utmost importance. The more solid matter in suspension which is eliminated from sewage before the liquid is distributed over the bacteria beds, the easier the work of oxidation, and the less odour produced.”

86. I am pleased to be able to say, as in 1912, no serious complaints of nuisance arising from this enormous sewage area have been made to me.

87. KINGSBURY.—While still on the Tame it must be noted that Kingsbury has a works, bacterial in character, dealing with the sewage of the village, and the reports I have had from my Assistants during the year show me that very excellent work continues to be done here.

“TAMWORTH.—These works, jointly for the Borough and certain parts of the Tamworth District, are also well looked after, and being quite up-to-date are performing their functions satisfactorily, and sending a good effluent to the River, and at the same time are producing no nuisance.

89. WOOD END.—These little Works in the Tamworth Rural District are bacterial in type, and on examination in June by Dr. HAMILTON WOOD, they were found to be quite satisfactory, except that suspended matter in the effluent was somewhat high.

90. HURLEY COMMON.—This is also a small Sewage Works in the Tamworth Rural District, and I hear that the effluent produced from it at the present time is quite satisfactory.

91. THE RIVER AVON.—This is our largest River, and although it does not receive so much sewage and sewage effluent as the Tame at the present time, it must receive altogether, below Rugby, the sewage of more than 200,000 persons. Up to now, speaking generally, and this statement was confirmed by the Report issued last year by the Rivers Pollution Commission, no serious detriment has occurred to the interests of those having rights in the stream, but this result can only be maintained in the future by careful efforts to deal with the constant flow of sewage.

92. NEW BILTON.—Situated close to Rugby, is the first District of importance to send effluent into the River. These works during the year were not, generally speaking, satisfactory, and at the present time plans are being prepared to deal with the sewage on more up-to-date lines, and thus improve the character of the effluent.

93. DUNCHURCH.—The sewage of this District is treated on land by irrigation, and I regret to state that this land during the year was by no means satisfactory in condition. It was inspected on November 29th by Dr. HAMILTON WOOD, and was not found to be satisfactory, there being very little evidence of purification, as shown by analysis. Since the end of the year it has been further inspected and representations have been made to the Rural District Council as to the necessity of improving the condition.

94. **BRANDON AND WOLSTON.**—Both these villages discharge their effluent indirectly into the River, but although there is no modern plant for dealing with sewage, under the existing circumstances I do not suggest that any serious pollution is being caused.
95. **KENILWORTH.**—These works consist of a septic tank and double filter beds. Owing largely to careful and general excellent management, they produced during the year a very good effluent, which had no polluting effect on the Finham Brook which discharges into the Avon.
96. **COVENTRY.**—The City of Coventry, with its population of nearly 120,000 persons, and its large manufactories, has at the present time a very difficult task to produce an effluent fit to be discharged into the stream. The task is difficult chiefly because of the rapid growth of population. The Works at Baginton were designed when the population was just about half what it is at the present time, and only a comparatively few years ago. Extensions have taken place and the area of land for treatment has been much increased, while at the present time a loan has been obtained for a bacterial installation based on experiments carried out by the City Surveyor, under my supervision, which promises, when the work is completed, to materially improve the condition of affairs. Owing as I have said to the extraordinary increase of population, the resources of the present purification plant are taxed to the utmost, and as a result, I have no doubt—particularly at times—that forces are at work deteriorating the River, particularly that portion of it by Baginton.
97. In his Report to the Warwick Rural District Council, DR. TANGYE says the condition observed by him in July, when he made a special inspection of the River, were much as those described in his last Annual Report, though if anything there was a slight improvement in the appearance of the River.
98. Under the present circumstances things must remain much as they are until the completion of the bacterial installation now being carried out.
99. **BOROUGH OF WARWICK.**—The sewage of Warwick is pumped up from the Pumping Station on to a large area of land, most of which I have described as little suitable for sewage purification. As a result of many representations made to the Town Council, towards the end of the year steps were taken to obtain a loan for improving the arrangements. On December 10th a Local Government Board Inspector held an Inquiry into the application of the Town Council for permission to borrow £8,000 for the purposes of Sewage Disposal. I called the attention of the Inspector to the fact that the new proposals practically did little to meet the complaints which had been made by the County Council as to the bad quality of the effluent discharged. While I admitted that the new pumping arrangements would be an improvement on those previously existing, as doing away with certain crude pollution at the Pumping Station, yet I was compelled to point out that the new works touch only to a very small extent the treatment of the sewage effluent when it reached the land. On behalf of the Corporation, it was promised at the Inquiry that if it were found, after the works were completed, that further treatment was necessary, this should be carried out. It is only fair that I should state that better attention has been given to the work, and in December, as the result of an inspection and an analysis of the effluent, I can state that improvement was shown on many samples taken in the past.
100. **LEAMINGTON.**—The sewage from this town is pumped up on to an area of land, and dealt with by irrigation. Speaking generally, the effluent produced is satisfactory, though complaints have reached me that nuisance is sometimes observed from certain portions of the land, particularly those in close proximity to the Heathcote Hospital. The question of nuisance to this Institution arose some years ago, and as a result of conversation it was promised that the sewage should not be applied to those fields nearest the Hospital.
101. **BUDROOKE BARRACKS.**—Up to the end of the year practically nothing had been done for dealing by a new scheme with the sewage from these Barracks. The War Office, however, had expressed their intention of carrying out a scheme in the current year. I am pleased to be able to report that owing to the greater care exercised in the distribution of the sewage on the land by the farmer tenant, much less pollution of the brook was noted than in the past.
102. **STRATFORD-ON-AVON.**—This town has an excellent Sewage Works, and the Manager here is performing a great work. As a result of his scientific investigations, he has been able to maintain the good quality of the effluent discharged, and at the same time to obviate to a very large extent, the nuisance resulting from the operations owing to the nature of the sewage, which is largely brewery waste. I have always found the effluent discharged from these Works to be non-putrifying.

103. KINETON.—On the whole the sewage works for this township are fairly satisfactory, though they are somewhat over-taxed. The raw sewage is strong and offensive. The result of an analysis in June last shows it to be well oxidized and on the whole satisfactory.
104. WELLESBOURNE.—These works were completed during the year and an analysis taken in June, showed the effluent to be satisfactory, and the stream into which the effluent runs showed no obvious sign of pollution, though it was rather obstructed with bushes and weeds.
105. It will thus be seen that much regard has been given to the Avon water, and I feel quite confident in making the assertion that despite the great increase in population and the difficulty *qua* treatment that this implies, there has been no deterioration in the condition of the Avon water during the year, when it leaves the County.
106. THE COLE is a small River passing close to Birmingham, and the Cole Hall works, originally laid down to deal with the sewage of Yardley, have now been taken over by the City of Birmingham. These works have been extended during the year by no less than $1\frac{1}{2}$ acres, while improvements have also been made in the management of the settling tanks and humus pools, resulting in more frequent cleansing of both. In a letter to me of July this year, Mr. WATSON says :—" I expect that the Board will on Wednesday next confirm the unanimous resolution of the Works Committee to construct an intercepting sewer from Acocks Green to Cole Hall, with the view of conveying the whole of the sewage which is treated by irrigation at Acocks Green to Cole Hall, where it will be treated on bacteria beds. This extension will involve a total expenditure of £61,560, £14,094 of that sum being allocated to the extension of the bacteria beds, etc., at Cole Hall." This is a very important matter, as the present arrangements for dealing with a very rapidly increasing portion of Yardley, namely the Acocks Green area, are by no means satisfactory, as I have before pointed out.
107. As regards COLESHILL, little further has been done. They may be right, but the Meriden Rural District Council in this case have adopted the motto *festina lente*, for I understand that nothing practical has been done to deal with that considerable portion of the town which discharges *crude sewage* into the River.
108. RIVER BLYTHE.—I can report quite satisfactorily on the condition of this River. The new Works at Solihull have been well carried on during the year, and have produced an excellent effluent, while the effluents discharged from the areas of land belonging to Knowle, Solihull, and Olton, are reported by Dr. HAMILTON WOOD to be carried on fairly well and not to be causing any serious pollution. I am informed that £1,000 has been spent at Hampton-in-Arden in improving and re-laying new sewers, while two acres of land are used for dealing with the sewage of the District, and a third one is likely to be added.
109. RIVER ANKER.—This River, receiving as it does the sewage from Hinckley and Nuncaton, though not a large one, remains in a fairly good condition. The Hinckley District Council in Leicestershire have done a great deal to improve the effluent, and are carrying out several experiments, while the works at Nuncaton have been brought completely up-to-date and will bear comparison with any modern Bacterial Works in the County.
110. BEDWORTH AND FOLESHILL.—I am afraid I cannot congratulate Foleshill District Council on having done much to improve the condition of the Bedworth Works. The Foleshill Sewage Works are fairly satisfactory on the whole, but as I have before pointed out, those at Bedworth are not properly performing their functions and are allowing an unsuitable effluent to be discharged. On the 18th July, 1914, I heard from the Surveyor that the Council intended to proceed with the building of two detritus tanks, and one screening chamber, and also to provide a new sludge lagoon. They have also purchased an additional acre of land, and the works, it is hoped, will be completed during the current year.
111. ATHERSTONE.—Something has been done to improve these Works during the year. The rectangular bacterial filter has been considerably enlarged and now measures 70-ft. by 16-ft. by 5-ft. The distributor, however, was not working properly when visited by Dr. HAMILTON WOOD. The Surveyor informed him that the works now received daily attention, a man being constantly employed there. The land effluent, however—part of the sewage being treated on land—is not so satisfactory, and as I have pointed out in my Quarterly Reports, something further requires to be done to raise the standard of the general effluent of the town to a reasonable condition.

112. POLESWORTH.—These works—on Bacterial lines—are doing excellent work, and when inspected have always been found to be producing a satisfactory effluent.
113. DORDON.—Here there is a tank and filter, and I am pleased to be able to report that the better attention given to the work has resulted in an improved effluent.
114. HATTON ASYLUM.—I have much pleasure in reporting that again this year whenever samples have been taken from these filters, the results have always been in the highest degree satisfactory. The effluent discharged produces no pollution.
115. In addition to these important Sewage Works, important that is as possibly producing pollution in Rivers, there are many other small installations consisting of tanks, and small areas of land, or filters, which on the whole are performing their functions satisfactorily. In the case of Arley, works are being laid down—bacterial in type—to deal with the sewage of this rapidly increasing colliery village. In Fillongley, I regret to say matters are still hanging fire, though a fresh gravitation scheme has been prepared and an application I am informed is about to be made to the Local Government Board for a loan. This is an urgent matter, as at the present time a River which is used as a water supply, is receiving an unnecessary amount of pollution. Bulkington is also said to be taking steps, not only to deal with its sewage, but to lay down a system of sewerage, but matters have not progressed so far for an Inquiry to be held.
116. It will be observed that the efforts which we have always made in the County to prevent River pollution and deterioration of River water, have in no way been relaxed during the year, and it is extremely satisfactory for me to be able to report such a successful issue.
117. I may mention as a personal item, that I was appointed President of the Association of Managers of Sewage Disposal Works during the year, and in a Presidential Address, delivered before the Association, entitled “Fifty years of personal experience of Sewage Disposal,” I was enabled to show the good results that have been achieved in the County, and to sum up the position of the problem of Sewage Disposal in the following words: “While we must all be ready to admit that there is no finality in science, we may say with justice, that from the point of view of the Municipality the sewage problem has been solved, in that it has been shewn by the Report of the Royal Commission that practically any degree of purification can be obtained at a reasonable cost. What is required is the application of the science and skill of the biologist, the chemist and the engineer, to elucidate the problem in each particular case, and to lay down those conditions for treatment which experience has evolved.”
118. I also called attention to the strong opinion I hold as to the importance of management of Sewage Works. Personally I would sooner see a comparatively badly constructed works well managed, than the most modern up-to-date installation mismanaged or neglected, as is so often seen. In the one instance there would be a possibility, or even a reasonable probability of effective work being accomplished, but in the other, nothing but disastrous waste of money and opportunity.

ELEMENTARY SCHOOLS.

119. The management of these Schools is primarily under the Education Committee of the County Council, but as regards their sanitation the powers of the District Councils are not abrogated. It is indeed the duty of these Councils to satisfy themselves that proper work is being done to maintain the Sanitary condition of the Schools. Owing, however, to the excellent arrangements made by the Education Committee, very little has been done by the Local Authorities, though I believe in some few instances suggestions have been made for alterations in latrines, drains, etc. I cannot help, however, calling attention to the great satisfaction I feel at the new type of School which has generally been erected in the County of late years. I refer to what is known as the “Pavilion Type.” Though in some respects, perhaps, looking at it only from a scholastic point of view, something might be said for the Central Hall type, in a sanitary sense, it is in my opinion objectionable. Reasonably good ventilation—even though mechanical means be adopted—is impossible, and I am very gratified to find therefore, that while for a long time the Board of Education pinned its faith to the Central Hall type, it has in its latest report, shown its complete approval of the “Pavilion” type, which the Warwickshire Education Committee was one of the first bodies to adopt.
120. It is only right also to refer here to the very excellent arrangements in the County for giving instructions in the Schools by means of the Health Visitors. A very large number of “Health Talks” were given during the year, and at the same time seeds were sown that will bring good fruit in the future—in the way of improved hygienic knowledge given to the children—when they themselves become parents and householders.

VACCINATION.

121. Except to the Anti-Vaccinator, our Vaccination Report is increasingly melancholy. Out of 7,167 Births in the period selected, only 2,652 were described as "successfully vaccinated," while the number of "Conscientious Objectors" has increased to 3,731, compared with 3,304 in 1912. It must not, however, be supposed that this neglect of vaccination is equally marked throughout the County. In the town of Nuneaton, out of 1,140 births, only 173 were vaccinated, and 838 Certificates were obtained; Sutton Coldfield, on the other hand, out of 388 registered births, had 263 successfully vaccinated. In the Rugby Urban District, out of 460 births, only 58 were successfully vaccinated and 347 Certificates obtained. In the Rural Districts things are almost as bad in certain places. For instance, in Foleshill, of 835 births, only 193 were vaccinated, and 546 Certificates obtained, while in Rugby Rural District out of 463 births registered, 322 Certificates were obtained. In Solihull better counsels prevailed, while in Stratford-on-Avon Rural District results are not so unsatisfactory. I feel sure that it is no use at the present juncture to do or say anything further than I have been doing in the whole twenty-five Annual Reports I have written, and I can see nothing likely to be effective, except that rough and pathetic lesson which comes—as it inevitably will come—when the flame of an epidemic is lighted by the importation of infection from outside.

REFUSE DISPOSAL, SCAVENGING, ETC.

122. I was able last year to report a great advance in the removal of refuse and scavenging in nearly all the Districts. From the Reports it would appear that not only has the activity thus originated been maintained, but that improvements have been effected in many instances.
123. In Bulkington for instance, the Medical Officer of Health says:—"The scavenging of the District is now being thoroughly done, the ashpits, etc., being emptied as often as required, or upon receipt of notice in writing from the Inspector, or from any occupier or owner."
124. In Atherstone on the other hand, the Medical Officer of Health reports that "up to the present time we only have this work carried out in the Parishes of Atherstone, Hartshill, and Polesworth." He also reports that no move has been made in the matter of Scavenging in Ansley Parish. In the Baddesley Ensor District, as a result of inspection, the Medical Officer of Health says:—"I may say that even the partial inspection I have been able to make in Baddesley suggests two lines of very evident sanitary improvement which should be carefully considered and carried out with as little delay as possible. The first is a complete system of sewerage, with efficient outfall works, and filter beds, and secondly an arrangement for public scavenging so as to do away with the unhealthy nuisance of allowing "every one to be a law unto himself" as to tipping ashes and other refuse at points most convenient to himself."
125. In Sutton Coldfield there has been a marked extension, the number of removals of dust and refuse from pits and pails during the year was 209,047, as compared with 131,455 in the previous year.
126. In Foleshill, Dr. JOHN ORTON says that the Council's Contracts for Scavenging have been properly carried out, and that in his opinion the Contractors do their very best to comply with the proper disposal of the refuse. After describing the methods of dealing with refuse and the danger of deposition and the consequent breeding of flies and the possible causation of epidemic disease, he says:—"I feel convinced that a Destructor is the only solution of the difficulty. One such would serve the needs of all our populous parish. I trust, at an early date, the Council will again consider such a scheme." He also records that on his advice the Council distributed large cartoon papers during the summer, entitled "Kill those Flies." I am of opinion that this is a very useful procedure and might be adopted with advantage by other communities in the County.
127. In Kenilworth, Dr. TANGYE calls attention to the desirability of the removal of house refuse at weekly intervals, instead of fortnightly as at present, and also suggests that the question of the provision of a destructor should receive careful consideration.
128. As regards the Borough of Nuneaton, the Medical Officer of Health reports that refuse is collected by the Council's own employees. Ashpits are emptied on receipt of a notice. All dustbins are emptied weekly, covered carts being used for this purpose. All night soil is deposited on tips and these carted away by the farmers, and all house refuse is destroyed by the Refuse Destructor.

127. In the Rugby Urban District Scavenging is carried out at weekly intervals, or in some cases more frequently, and disinfectants are used during this process in the summer months. The refuse continues to be satisfactorily disposed of at the Destructor.

128. In the Borough of Warwick the refuse is removed at weekly intervals and in some instances more frequently, and during the year improvement has been effected by the use of additional team labour. The greater part of the house refuse is disposed of at a tip at the Cape, which was formerly a brickyard. Dr. TANGYE says this is rapidly becoming filled up, and a new tip will have to be acquired. A small quantity of refuse is also tipped at Myton.

129. In the Rural District of Aleester, scavenging takes place at Aleester, Studley, Bidford, and Ipsley, and is reported as being done in a satisfactory manner, and arrangements have been made whereby the removal will be carried out at more frequent intervals.

130. In the Coventry Rural District the Medical Officer of Health states that the disposal of refuse is by cart, the material being removed to agricultural holdings outside the District.

131. In the Meriden Rural District, Dr. TANGYE reports :—

“In the two first mentioned villages the same contractor who has given general satisfaction has renewed his contract for a further year. Complaints have been received from the Castle Bromwich Parish Council as to the untidy condition of the Little Heath tip. On special investigation it was found that although the tip had been left in a satisfactory condition by the men employed in scavenging, it was almost immediately disturbed and rendered unsightly by itinerant rag and bone men. Nuisance is thus undoubtedly caused especially during the summer, and the only remedy would appear to be the provision of an unclimbable fence around the pit.

“At Water Orton the contractor has disposed of a considerable portion of the material on private land.

“Scavenging was begun at Coleshill in August, and appears to be much appreciated by the numerous occupiers of houses with small back-yards and gardens. So far the new arrangement has been handicapped by the necessity for removal of large accumulations which had been collecting for long periods before the present contract commenced. The present scheme provides for the emptying of middens every three months, and pan closets every fortnight, and the removal of house refuse monthly. It appears doubtful whether these intervals are sufficiently frequent, but the present method has already resulted in a great improvement in the cleanliness of the town.

“At Hampton-in-Arden and at Allesley, similar schemes would be a great advantage, since cottagers and others have difficulty in these villages in properly disposing of their refuse. Under such circumstances it is impossible for the sanitary staff to prevent undesirable accumulations of offensive refuse near houses.”

132. I would call attention to Dr. TANGYE's remarks referring to Coleshill. In this respect I quite agree with him that the conditions of removal of refuse and midden contents, are not sufficiently frequent. I also consider from my knowledge of the two places, Hampton-in-Arden and Allesley, that it is extremely important that systems of scavenging should be adopted for these places.

133. In Monks Kirby Dr. O'CONNOR reiterates a former plea for the removal of refuse and night soil in the larger villages. I strongly support his remarks.

134. As regards Rugby Rural District, Dr. TANGYE says :—“Public scavenging of house refuse is in operation at New Bilton, and of house refuse and night soil at Newbold, Clifton, Hillmorton, and Long Lawford. The schemes for the last four villages were initiated during the year, and the general condition of cleanliness has already much improved in consequence.

“As a result of my report on the sanitation of the village of Dunchurch in connection with the recent outbreak of diphtheria in that village which is quoted later, the Council considered the desirability of scavenging that village also, and has since decided upon this course.

“There can be no doubt about the advantage of such arrangements, especially in the more thickly populated villages, and I hope that the method will extend eventually to include all such villages within the District.”

This is very satisfactory as regards Dunchurch, and with Dr. TANGYE I sincerely hope that an extension will take place in other villages as he suggests.

135. In the District of Solihull, Dr. TANGYE says:—"The Surveyor's Report appended shows the work done in this department at Solihull and Knowle. The ashes and refuse are removed to tips, and most of the night-soil to the various sewage outfalls. Complaints have been received as to the condition of the tip at Lode Lane, where a moat surrounding an old farm house has been used for this purpose. The occupants of the house naturally are subjected at times to nuisance, and I have reported on this matter to the Council. The house refuse is buried under ashes as far as possible, but the position of this tip is by no means ideal, though it is a matter of great difficulty to find a suitable place elsewhere. Complaints have also been received with regard to the meadow at Mill Pool Lane, Packwood, where refuse, including night soil from Knowle, is temporarily deposited. This tip is situated very near the road, and undoubtedly is at times a nuisance to passers-by. It would be very desirable to make some more satisfactory arrangement for this refuse, especially during the summer months.

"On 9th December I reported as follows with regard to the village of Tanworth-in-Arden:—"I have to report that, owing to various complaints, I have inspected the present sewerage of the village of Tanworth-in-Arden. Nuisances are undoubtedly caused by the present system, especially from a number of gulleys in connection with the sewer which are not properly disconnected, and also from the ditch which receives the sewage from the south-east slope of the village. It is very desirable that the Council should take into consideration the general question of the sewerage, and also the provision of a scavenging scheme for the removal of house refuse and night-soil. The present methods of disposal of the latter by individual cottagers leads to various nuisances, and the danger of pollution of wells upon which the village depends for its water supply. Whilst the sewerage of the village is very old, it appears to me capable at the present time of sufficient improvement to deal with the comparatively small volume of slop water without giving rise to nuisance, and the necessity for an expensive sewerage scheme for the village would be obviated, especially if the Council undertook the suggested scavenging scheme which is at present under the consideration of a Committee."

136. In Southam, Dr. TANGYE says:—"The public scavenging schemes at Southam, Long Itchington and Harbury, have worked satisfactorily during the year, and have been generally appreciated." In my summary of his report, I quote a special report made to the Council of the village of Napton, in which he urged the adoption of Public Scavenging in that village on the same lines as those in satisfactory operation in various other villages in the District. A meeting of the Ratepayers at Napton appears to have been called to consider the matter, and the parish representatives were instructed to vote against the scheme at the District Council, and as a result, the Council did not proceed with the scheme. This matter in my opinion requires further consideration.

137. In the Borough of Stratford-on-Avon, Dr. THOMSON says the house to house scavenging as carried out by the Corporation leaves little to be desired, but he suggests a greater provision of covered receptacles for household refuse which would assist in preventing the spread of disease by means of flies. I strongly support this suggestion.

138. In Warwick Rural District, Dr. TANGYE reports as follows:—

"Early in the year the Council decided to adopt bye-laws regulating the cleansing by occupiers of ashpits, sanitary accommodation, etc., and the Local Government Board on being requested to sanction such bye-laws for the District, required a report from me as to the possibility of the proposed bye-laws being satisfactorily complied with by cottagers. On 28th June I made the following report:—"I beg to report that I have made special investigations with regard to the points raised by the Local Government Board in connection with the proposed bye-laws for refuse removal in the District, and have come to the following conclusions:—"The villages of Whitnash and Barford are in need of public scavenging on the same lines as at present in operation at Cubbington. At Whitnash there is, generally speaking, very little space near the houses for refuse disposal, and this is in a number of instances being buried or accumulated dangerously near the private wells which are the source of water supply for the village. The village of Barford shows on the whole rather more space for such disposal, but in various instances there is great danger of pollution of wells, and as this village is situated on a very permeable gravel soil, the chances of such pollution are probably as great as at Whitnash. At Tile Hill Lane the present unsatisfactory disposal methods, upon which I have already reported, would be much improved by the public scavenging of the various dumb wells. The owner of the largest block of cottages will, I understand, undertake to properly remove the night-soil and ashes, and if this is done privately for all the new cottages, the removal of slop water by the Council should at present suffice. With regard to the other small villages and hamlets of the District, there appears to be sufficient space available for the proper disposal of refuse by individual cottagers under the proposed bye-laws, and I think that they could generally be obeyed without nuisance arising."

"I am glad to record that the Council agreed to the suggested scavenging schemes, and these are now in satisfactory operation. The bye-laws were later sanctioned by the Local Government Board for those parts of the District which are not scavenged by the Council.

"The long row of workmen's dwellings recently built at Tile Hill Lane just outside Coventry, and occupied by artisans employed in that city, have given rise, as anticipated, to much difficulty with regard to the disposal of sewage. This matter was described in my last Annual Report, and on 3rd May I reported as follows:—"I beg to report that I have again inspected the methods of sewage disposal at the new houses at Tile Hill Lane in company with the Sanitary Inspector. This matter was the subject of a special Committee Meeting on the spot on September 30th last, when it was recognised that the conditions were very unsatisfactory and likely to become worse. On my visit on April 18th last I examined the methods of disposal for the forty-three cottages of the Tile Hill Building Society. A strip of land parallel to the row of houses and distant some thirty-three yards from them, but above the level of the intervening gardens, is used for distribution of liquid sewage which is pumped from three cesspools at intervals on to this land. The night-soil is also buried here. The land is most unsuitable for this purpose, as it is heavy clay. The effluent finds its way into a ditch which joins that by the road side. No disinfectants appear to be used after the removal of night-soil, and the sanitary accommodation is therefore offensive. The night-soil from Mr. Golding's twelve new cottages appears to be buried at the bottom of the gardens at about thirty-eight yards from the houses. It should certainly not be disposed of nearer than this, and would be better removed from the premises altogether. All these houses are dependant upon wells in the back gardens for water-supply, and a continuation of the present methods on such a comparatively crowded area is certain to result in serious insanitation and water pollution. A proper system of drainage is urgently needed in this area, and if the water-carriage system cannot be installed scavenging is also essential. As a temporary means of abating the nuisance I would suggest that the Council should consider the advisability of a scavenging scheme to deal with both the liquid sewage and the night soil.'"

"Although the Council fully realised the necessities of the case there was considerable delay in improving the conditions, and on 22nd November I again reported:—"It will be remembered that I have reported on several occasions as to the need of the proper disposal of both slop-water and night-soil at Tile Hill. I inspected again on the 18th instant and found that the scavenging promised for the forty-three cottages of the Tile Hill Building Co. has not been acciered out by the owners on the lines settled with me and the Sanitary Inspector on 2nd June last. The conditions at this row have not been improved in the least since the special Committee visited in September, 1912, and the roads promised by the owner for access of the Council's scavenging tumbler cart to the cess-pools are not yet ready. I regret also to say that the conditions at Mr. Golding's twelve cottages justify the complaint received. Since my previous visit night-soil has been buried at distances varying from a minimum of four yards from the wells. Under these circumstances I have no alternative but to recommend the Council to arrange at once for a public scavenging scheme to include the removal of night-soil as well as slop-water, and to expedite the scheme already arranged for dealing with the slop-water. I would also suggest that owners should be asked to provide proper access to the dumb-wells of the neighbouring villa residences for the Council's tumbler cart if they cannot arrange for the proper disposal of slop-water. Finally, proceedings should be taken for the immediate abatement of several serious nuisances in addition to the above-mentioned, which have been outstanding for several months in spite of notices by the Sanitary Inspector."

"It is satisfactory to be able to state that all the recommendations were adopted, and the Council now arranges for the complete scavenging of the houses in this area. This procedure is expensive, especially in view of the size and number of the cess-pools which have to be dealt with, and moreover the scavenging must sometimes offend the susceptibilities of such residents as have been accustomed to properly sewered urban districts, although I have assured myself by personal inspection that the work is done with as little nuisance as possible. As this part of the District is growing, both sewerage and water mains will undoubtedly be necessary in the near future, but even if a sewerage scheme were undertaken at once the present scavenging scheme would be necessary during the intervals until sewers were available. It is a matter for the careful consideration of the Council whether a sewerage scheme should not soon be considered, since the expense of the present methods is equivalent to the interest and repayment of a very considerable loan, so that the cost of the permanent scheme would not probably greatly exceed that of the present absolutely necessary arrangement."

This is a very satisfactory record and this is the reason I have quoted it in full.

139. Speaking generally, I cannot help being gratified by the greater appreciation shown in all the County Districts—Urban and Rural—of the importance of cleanliness in relation to housing conditions. I have before pointed out, and still feel that a reiteration in this matter is not out of place, that practically the whole doctrine of modern sanitation is cleanliness applied to air, water, food, soil, and housing, and in no way probably is money better invested for sanitary well-being, than in the early removal of filth from dwellings, and the consequent improved sanitary conditions thereby produced.

INSPECTORS' REPORTS.

140. From a perusal of these—a Summary of which appears in the Appendix—I am of opinion that the Inspectors of the County as a whole are doing their work quite satisfactorily, and are rendering efficient service in the cause of Public Health. I called attention last year to the want of co-ordination between the Officers of the Sanitary Department of the Bulkington Urban District. This year the Medical Officer of Health in his Report says :—"No report has been received from the Sanitary Inspector." I cannot understand how such arrangements are allowed to go on.
141. It must not be forgotten that much more is now required from the Inspectors than was formerly the case. Particularly is this so in relation to removal of refuse, inspection of houses, and improvement of housing conditions. In the Urban Districts, though much additional work is put on the shoulders of the Inspectors, there is no difficulty in carrying out the duties, but in the Rural Districts, particularly those of large area, I have been struck personally, and also by conversation with District Medical Officers of Health, with the difficulties the Inspectors experience in covering the large areas and overcoming the distances. I reported last year that the Inspector of the Meriden Rural District Council had a motor cycle to enable him the better to perform his duties. I again call attention to this, and wish to accentuate the importance of the other District Councils giving similar facilities to their Inspectors.

HOUSES AND BUILDINGS.

142. Last year I was able to record a largely increased activity of the officers engaged in carrying out the work under Section 17 of the Housing and Town Planning Act. I am pleased to be able to record that this activity has been maintained, though there has not been much increase in the number of inspections made. In 1912, the number of inspections set down was 5,088, in the year under review 5,100. The work done in the Districts varies considerably. In Rugby Rural District 668 houses were inspected, and in Sutton Coldfield 613. In Nuncaton Borough 349 are set down as having been dealt with. In the Rural Districts the best results are shown at Atherstone, Brailes, Coventry, Foleshill, and Meriden. In Bulkington there is no record of anything having been done, and in Stratford-on-Avon Urban and Rural, the number of houses inspected is respectively 90 and 16. Looking at the large size of Stratford-on-Avon Rural District, I cannot feel satisfied with the amount of work set down.
143. Coming to the results of the inspections, I find that 373 houses were found to be unfit for habitation, 84 of these being in Stratford-on-Avon and 80 in the Borough of Nuncaton; 86 Closing Orders were made, and in 1,786 cases defects in dwelling houses were remedied without the making of Closing Orders. In 27 cases houses were made fit for habitation after the making of Closing Orders. Mention of the work done under a definite heading is made in many of the Reports.
144. In Kenilworth, Dr. TANGYE describes the main defects in houses as being insufficient bedroom lighting and ventilation, absence of proper food cupboards, and inadequate wash-house and scullery accommodation. I have dealt fully with what he says in my summary of his Report.
145. In Leamington Borough the matter is very fully dealt with by Dr. GIBBONS WARD, the Medical Officer of Health, and I have quoted largely from his Report in my Summary. He points out that the problem before Leamington, in its simplest aspect, resolves itself into the provision of cottages at a rental of from 3/6 to 4/6 per week. The factories employing skilled labour are few, and the number of men employed in them proportionately small.
146. In his Report on the Borough of Nuncaton, Dr. GRAY MAITLAND gives a resumé of the number of houses in each Ward, rated at and under £9 12s. per annum, representing a weekly rental of from 9d. to 6s. 6d. In my summary of his Report, I have quoted his opinions, which I need not therefore repeat in this place. Suffice it to say that he says :—"At the time of writing there is a reasonable expectation that this shortage is likely to be met by the provision of houses as a result of private enterprise."

147. In Rugby Urban District, housing seems to be very satisfactory, as Dr. TANGYE states:—"There is practically no really dilapidated housing in the town. There has thus been no necessity for the making of any Closing Orders during the year." 668 houses were inspected, and 219—including 27 which were outstanding from 1912—were put into good repair, and in 39 cases the repairs were not complete when the year closed.
148. At Stratford-on-Avon Dr. THOMSON says:—"There is good evidence that further building by the Town Council of working men's dwellings as carried out in 1912, would fill a want and afford opportunity for dealing with any overcrowding." He further says:—"Also it will be a point to avoid over economy in massing labourers dwellings too close to each other in mathematical squares, intersected by narrow roads. It is noticeable, even up at the small colony in the Birmingham Road, that an open space for the joint use of the children there would be useful."
149. At Sutton Coldfield it is interesting to note that while 613 houses were visited, only three were found unfit for habitation. In each of these cases a Closing Order was made. In addition, however, in 19 cases defects were remedied without the making of Closing Orders.
150. In the Borough of Warwick, out of 211 houses inspected, 10 Closing Orders were made on property that quite required it. 182 houses were found to require more or less repair. Referring to housing matters generally, Dr. TANGYE says:—"All purely housing matters have now been delegated to the Housing Committee, which meets every month and inspects a large proportion of the property dealt with and all houses where the question of closure arises. The result of this arrangement is most satisfactory, and more uniform and prompt improvement has been secured than has been possible in the past. A large amount of work remains, however, to bring the housing of the Borough generally up to a satisfactory standard of habitability."
151. In Alester, Dr. BROWNE says that considerable improvement has been made in the dwellings reported on. The number of houses inspected, however, was only 110, and of these 46 were found to be defective. No Closing Orders were made and the whole of the 46 houses had the defects in them remedied. He records also that the Alester Parish Council requested the District Council to build some houses in a better style, and the latter body promised to take the necessary steps to do this if it were found after a short time sufficient houses were not being erected by private enterprise.
152. As usual in his last few Reports, Dr. HERRING has dealt very fully with the housing question of Atherstone. It will be remembered that some little time ago Dr. HERRING reported very forcibly on the terribly bad state of much of the housing in Atherstone town. He says the Council took the matter up very promptly and soon were in negotiation for one or two sites. Negotiations were not altogether successful, but a piece of land was secured in Stanley Road, on which ten cottages have been erected. I have quoted very fully in the Summary of Dr. HERRING's Report, as to the work done, and undoubtedly though there is much yet to be completed, a fairly satisfactory start has been made.
153. Dr. GEORGE FINDLAY in Brailes also deals fully with the housing question of his District. He shows that the following villages were systematically inspected during the year—Oxhill, Butlers Marston, Pillerton Priors, Pillerton Hersey, Halford, Idlicote, Honington, Burmington, and parts of Long Compton and Tysoe. 340 houses were inspected, and 4 were found quite unfit for habitation. Three Closing Orders were made and in one case the landlord closed a house without a Closing Order. Dr. FINDLAY says:—"In those older cottages which have been closed, it was found that the general defects were the worn-out condition of the dwellings, or that they had become so dilapidated that they were beyond repair and needed re-building altogether." In this District the House rents are very low, and a large number of cottages are said to be let at 1s. and 1s. 4d. per week. He also further states that in some of the villages there is a real scarcity of good cottages suitable for agricultural labourers, and that this is particularly so at Long Compton, where there has been an increase of population. He states that a considerable quantity of the land in this parish is owned by Eton College, and he is informed that there is only one cottage on their estate suitable for an agricultural labourer. This matter has been considered by the Council and the Clerk has been in communication with the College Authorities, but though one house belonging to the College has been repaired, no definite promise to erect further cottages has been obtained by the Council.
154. In the Coventry Rural District, Dr. ILIFFE reports that 356 houses were inspected under Section 17, and not a single one was found to be unfit for habitation.

155. In Farnborough, Dr. JOHNS reports that 56 houses were inspected under Section 17, and 5 of them found to be unfit for habitation, all of which were closed voluntarily. The defects in 25 houses were remedied without the making of Closing Orders, and 4 houses have been put in order since the end of 1913 and opened as three houses.
156. In the District of Foleshill, Dr. JOHN ORTON reports that 15 Closing Orders have been made with respect to 41 houses. It would appear that a Housing Committee was appointed by the Council, and this body has surveyed properties in Exhall, Foleshill, and Bedworth, accompanied by the Medical Officer of Health and the Inspector. Dr. ORTON says :—"Members of the Committee have taken a great interest in the work and it strengthens the hands of the Officers to know that the Council are fully cognisant of the housing conditions which prevail." He further says :—"We have been handicapped tremendously by the fact that the prosperity of Coventry and district has caused a great scarcity of houses. Rents have risen, and overcrowding, as has been mentioned, is unfortunately very common."
157. In Meriden much greater activity took place in inspection of houses under Section 17. No less than 311 houses have been dealt with. Of these, 8 were found to be unfit for habitation, and 6 of them were remedied on informal notice. During the year, 149 houses were repaired, and 61 were in course of repair when the year closed. The parish of Coleshill has continued to receive special attention. The method of inspection is described in full by Dr. TANGYE in his Report and he states :—"That the use of informal rather than statutory notices has been continued with good results, but where work is unduly delayed, recourse is had to statutory notices under the various Public Health and Housing Acts, which, of course, form the basis of all requirements for improvements made by the Inspector or by myself."
158. A large proportion of Dr. O'CONNOR'S Report on Monks Kirby is devoted to the Housing of the Working Classes, giving particulars of administration under the Housing (Inspection of District) Regulations, with details of conditions discovered. I have quoted his remarks in full in my Summary of his Report.
159. In the Rugby Rural District, 163 houses were inspected, distributed over 22 of the 31 parishes of the District. Five houses were found unfit for habitation, and in each case a Closing Order was made. Dr. TANGYE says :—"The defects found were of the same type as those found in other Rural Districts in the County, and included defective walls, floors, roofs, plaster, external pavings, spouting, wash-house and sanitary accommodation, water supply and general dilapidations. Bedroom ventilation has been very commonly found defective, and in connection with housing work many improvements in drainage have been effected." He also states that during the year 55 new houses have come into occupation, of which 21 were at Hillmorton Paddox and 14 at Bilton. He gives a table drawn up by the Inspector, at the request of the Housing Committee, as to the houses it would be desirable for the Council to erect to meet the demand. Dr. TANGYE says he agrees with this statement, but as a result of very frequent inspections in the District he is of opinion that a much larger number of houses than the fifty shown in the table would readily find tenants. Dr. TANGYE says this list has received favourable consideration from the Committee, and it will form the basis of action during the present year.
160. In the Solihull District, 252 inspections of houses were made, and 15 were found unfit for habitation. Five Closing Orders were made, and 134 houses had defects in them remedied.
161. Referring to the demolition of houses, Dr. TANGYE says :—"The demolition of condemned houses provided for by the Housing and Town Planning Act after the expiration of three months from closure if no attempt at repair has been made, has not been systematically carried out by the Council; in one instance an extremely insanitary cottage was intermittently occupied under the most miserable conditions by the tenant for many months after 'closure.' It is highly desirable that, when the closure of premises is definitely decided upon, the provisions of the Act should be strictly observed."
162. In conclusion, Dr. TANGYE further says :—"On the whole the condition of the housing of the working classes in the District is, if anything, above the average of the County generally. For the most part only the worst houses have been selected for inspection, and as far as possible inspection has at once been followed by communications to the owner as to necessary repairs, which have almost without exception been carried out on informal notice without formal action by the Council. In this way the general housing conditions are being substantially improved throughout the District, but it is impossible to expect that the inspection of all houses under £16 per annum in rental, as required by the Regulations of 1910, can be completed for a very considerable time unless

an Assistant Inspector is provided for this purpose. The Sanitary Inspector already has his time fully occupied, and cannot do justice to more than about 250 house inspections per annum, involving, as a large majority do, correspondence as to repairs, meetings with owners, and frequent re-inspections. The estimated number of houses in the District under £16 per annum in rental is 2,723, and the number completely inspected to the end of 1913, 481. Under present conditions all such houses will have been completely inspected by about the year 1921."

163. In Southam, 151 houses were inspected, but none were condemned as unfit for habitation. 55 of these were at Harbury and 40 at Long Itchington. In 98 cases defects were remedied. Dr. TANGYE says :—"There still remain 19 houses inspected in 1911 and 1912, which have not been repaired in accordance with the requirements of the Council, and it will be necessary for the Council to take steps to secure that their requirements are more promptly obeyed."
164. As regards the adequacy of housing accommodation in the District, Dr. TANGYE says :—"Whilst the need for housing is not so acute as in neighbouring districts, the large cement works naturally tend to produce a shortage in this direction, which, however, the Companies themselves to a certain extent have endeavoured to meet."
165. Forty-five new houses were erected during the year, and in addition, a barn at Marston Doles, in the parish of Priors Marston, was converted into a farm house.
166. Dr. FAUSSET states that a fair amount of work was accomplished during the year in the Tamworth District; 85 houses being inspected. Having regard, however, to the size of the District, I do not think the amount of Housing Inspection can be regarded as adequate. He describes the houses for the working classes as, on the whole, fairly satisfactory, the dwellings not being unduly crowded. He also says, however, that in some of the populous parts of the District, it is next to impossible to obtain a house, as the demand is so great.
167. In Warwick Rural District, 208 Inspections were made, and only one house was found unfit for habitation, and for this a Closing Order followed in due course. Inspection appears to have taken place in 16 of the 30 parishes of the District, the largest number inspected being at Cubbington and Offchurch, where the numbers were 39 and 27 respectively. Sixty-eight houses were completely repaired during the year. The defects found were such as have been previously described.
168. Speaking of the demand for cottages in the District, Dr. TANGYE says :—"No doubt additional cottages, especially in the neighbourhood of Coventry, would readily let, but in general it may be said that the demand has not reached an acute stage in any part of the District, although a considerable proportion of the population obtain their living in the towns of Coventry, Leamington and elsewhere, so that the Rural District actually houses a number of persons practically belonging to these towns."
169. Twenty-six new houses were completed during the year.
170. Dr. TANGYE calls attention to a scheme for increasing the accommodation at Tile Hill Lane, and states :—"Apart from the unsightly arrangement of this proposed building, it would have been most unsuitable for erection in a country area where there are neither water mains or sewers. It is fortunate that the plan was not proceeded with, but this project indicates the great need of a Town Planning Scheme in the part of the District bordering on Coventry. The rural code of building bye-laws of the District cannot restrict the indiscriminate erection of unsuitable workmen's dwellings tending to introduce slum conditions without the advantage of proper water supply and sewage disposal which help to mitigate the ill effects of town slums."
171. It will be seen by the record given in the preceding paragraphs, that though much good work is being done in many of the Districts, further suitable and sanitary accommodation is undoubtedly required, and I trust that during the year attention will be given to the recommendations of the District Medical Officers in this respect.
172. I again would call attention to Article IV. of the Regulations under the Housing Act, which states :—"The Local Authority shall, as far as may be necessary, take into consideration at each of their ordinary meetings the records kept in pursuance of Article III. of these Regulations." In the Borough of Sutton Coldfield this is regularly done with good results, and I understand the same rule applies in the case of the Rugby Rural District Council. I think it would be desirable for the County Council to ask for information as to the procedure adopted in dealing with Reports on Housing defects.

WATER SUPPLY.

173. I have little further to add this year in the way of general remarks on this question. In my Summaries on the Reports of the District Medical Officers of Health, I give details generally of the conditions found in each District. The matter receives a certain amount of importance this year owing to the serious outbreak of Typhoid Fever which occurred at the end of the year at Kenilworth, and which I have dealt with fully elsewhere. I call attention to it under this head because it accentuates points I have endeavoured to make for a long series of years. I have repeatedly called attention to the views of the Local Government Board as to the importance of frequent chemical and bacterial examinations of Public Supplies, as well as of private wells. Unhappily in the past, in many of the smaller Districts, when once a supply of known purity has been provided, it has been taken for granted that the conditions under which it is supplied must of necessity remain all right. This year, the object lesson at Kenilworth, to which I have referred, gives point to my remarks, and in fact my remarks have been quoted by the Inspector of the Local Government Board in his Report on the outbreak.
174. The specific poison of disease is so subtle and so invisible under ordinary conditions, that contamination from unexpected sources may occur, producing outbreaks of disease and death, and it is therefore with satisfaction that I can state that of late much more attention has been given by Urban and Rural District Councils to the importance of constant inspection and supervision of public as well as private supplies.
175. In Stratford-on-Avon Borough, the Medical Officer in his Report states that improved methods of purification are to be adopted, and other methods taken to remove possible pollution from the collecting grounds.
176. In Southam, Dr. TANGYE relates, as I have shown in my summary of his Report, the action taken to find a supply for the town itself and also at Long Itchington. He also refers to the conditions at Harbury, and concludes his report with the following important statement :—"With regard to the various villages which have public supplies, I would emphasise the importance of maintaining the greatest cleanliness of collecting areas and reservoirs. Since the end of the year the Council have authorised the taking of bacteriological and chemical samples from all public supplies. If these should indicate pollution it will probably be due to want of attention to the works rather than to the contamination of the springs from which the supplies are derived."
177. Speaking generally, I can say that considerable advance has been made in the work done for maintaining the quality of public and private supplies in the County.

BACTERIAL EXAMINATIONS.

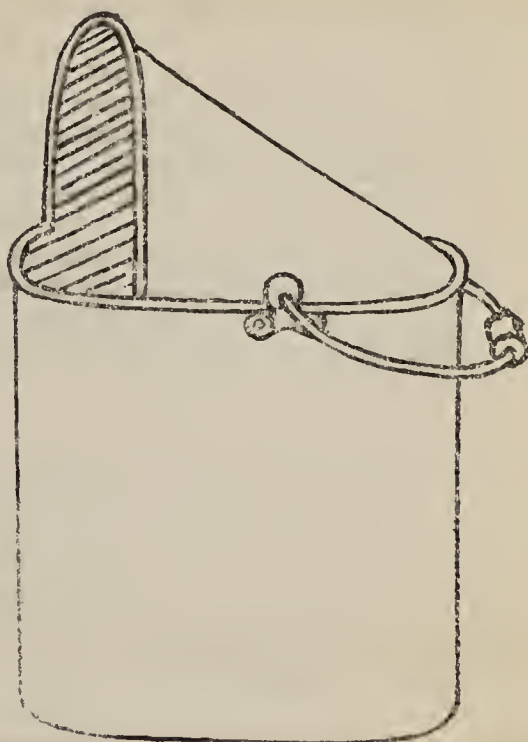
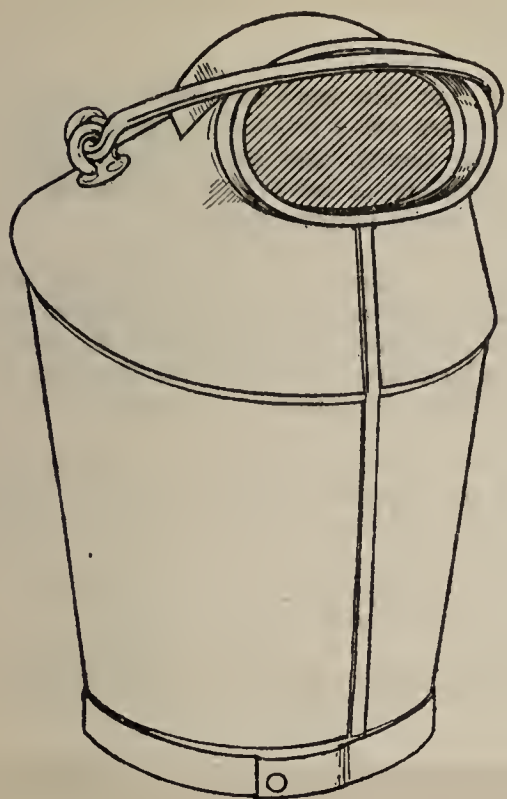
178. The extended scheme by means of which any practitioner in the County can have examinations of swabs of Diphtheria cases, blood in cases of Typhoid Fever and sputum in Consumption has worked excellently during the year, and has been taken much advantage of. Particularly was this the case in the outbreak of Typhoid Fever at Kenilworth.
179. The figures for Bacterial Examinations made at the Birmingham University during the year 1913, are as follows :—Diphtheria, 640 ; Diphtheria Contacts, 103 ; Typhoid, 89 ; Tubercle, 323.
180. It is interesting in connection with this, to note the importance the Central Authorities attach to the facilities afforded for bacterial examinations as a means of protecting public health, as it has been proposed to give grants to Local Authorities who carry out this work, in proportion to the efficiency with which it is performed.
181. I would again urge all District Medical Officers of Health to take a personal interest in this matter, and by precept and example, where necessary, to accentuate the importance of the information afforded in certain cases to practitioners in their District. I should also esteem it a favour if in future in their Reports, District Medical Officers of Health would give a record of the number of cases sent by practitioners from their Districts.

COWSHEDS, DAIRIES AND MILKSHOPS.

182. I am afraid I have very little further to report in the way of advance in the Sanitary conditions of these places. The promised Milk Bill has not yet become law, and all we can do at the present time is to endeavour to show the importance of increased cleanliness in the production, storage and transmission for sale of milk. Hardly a single person does not know that milk is a very suitable vehicle for the growth of micro organ-

isms. In investigations on outbreaks of Infectious Disease, one of the first enquiries is as to the milk supply, yet though this is so, I think it may be stated as a fact that a very insufficient degree of care is taken at the present time to prevent the entry of filth into milk. Being an opaque liquid, sediment is not readily observed unless it be enormous in amount. From examinations which I have made, I consider there is an improvement in the way cattle are kept, in the cleanliness of cowsheds, and to some extent in milking; but these matters have not progressed very far, and very much more is required before milk, so necessary as a food for infants and invalids, can be supplied in a reasonably sanitary condition. Years ago the most important point was considered to be the prevention of adulteration of Milk. Thanks to the action taken under the Sale of Food and Drugs Acts, much improvement has been shown in this respect, and the efforts of those engaged in looking after public health is now more required in the direction of cleanliness in production and storage, and regard for the health of the cows and of the milkers.

183. I have no records that any samples were taken during the year for the purpose of discovering whether or not milk supplied to the public contained tubercle bacilli. I have before pointed out how desirable I consider this procedure, in fact, I look upon it as part and parcel of the great scheme now being launched, for dealing with Tuberculosis as a local and national scourge.
184. In connection with the matter of cleanliness, I would suggest the use of special buckets for milking, as these tend to keep a large quantity of dust and filth from the milk during the process of milking. I am indebted to the Medical Officer of Health for the City of Birmingham—Dr. John Robertson—for permission to use the two diagrams of buckets, inexpensive in themselves, and quite effective for the end in view.



HEALTH VISITORS.

185. Our experience in the last few years of the work done by Health Visitors has been so satisfactory, that practically no change in our methods occurred during 1913. In the previous year the Staff had been increased by the appointment of two Probationer Health Visitors. When vacancies occurred, experience showed that this arrangement, viz., utilization of Probationers, was not altogether satisfactory, and consequently, on the retirement of Miss Green, and the appointment of Miss Baker on the full staff, it was decided to appoint one Staff Health Visitor in place of the two Probationers. Miss Newsome was appointed and remained at work to the end of the year. At the present time therefore, our staff consists of one Superintendent, 11 Health Visitors in charge of Districts, and one Staff Health Visitor. Owing to the fact that accidents happen, and at times illness incapacitates some of the members for long or short periods, the work of a Staff Health Visitor becomes extremely important.

186. It is with great regret that I have to record that one of the Staff developed Pulmonary Tuberculosis in the latter part of the year, and being an Insured person was entitled to receive Sanatorium benefit. The lengthy absence from her District made work extremely difficult, but it was carried on, despite attendant difficulties, owing to the energetic labours of the rest of the Staff.
187. Perhaps the most important work other than routine duties, carried out, has been the development of Tuberculosis visiting in the County. Though no definite scheme had been adopted for treating Tuberculosis patients at the end of the year, owing to the fact that notification of cases was taking place, I was enabled to distribute the names and addresses of all reported cases to the Health Visitors, who were in this way able in their turn to advise as to the necessity for treatment being obtained in the case of Insured Persons, and also to give general advice in the case of persons not insured. I have reason to believe that very good results have been obtained.
188. Another branch of the work which has been somewhat accentuated during the year has been the "Health Talks" to School Children, and the Lectures to Midwives. I have reason to believe that the work accomplished by "Health Talks" in the Schools is of the greatest value, and supplements in a great degree the normal teaching of hygiene given under the code. The teaching, if I may say so, is of a somewhat different type, dealing with the question of health from another point of view, and though it has been argued by some that the present teaching given by the School Staff, renders "Talks" by our Health Visitors redundant, I cannot in the least agree with that view.
189. It is extremely gratifying to know that during the year much attention was given in other quarters to what is now generally known as the "Warwickshire Scheme," and I record with pleasure that I have had many visits from other County Medical Officers, and in some instances deputations from County Councils, in order that they may become personally acquainted with our methods and results.
190. It is with pleasure that I can record my opinion that the meal allowance now given under certain circumstances when the Health Visitors are away from their homes during the day, has been of great service in maintaining the health and physical strength of the members of the Staff. In two instances particularly I have been surprised and gratified at the improved well being which has been clearly demonstrated.
191. Many of the Medical Officers of Health testify again their appreciation of the help given in their Districts by the County Staff, and it is my aim as far as possible, and that of all the Health Visitors themselves, that they should be enabled to give such help as they can, in making good the deficiencies which must exist in the capacity to do home sanitary work in the smaller Urban and Rural Districts.
192. I can again report that Leamington is the only Borough which up to the end of the year had appointed a Woman Health Visitor. In this Borough, therefore, the visiting of infants and Tubercular patients was carried out by the Local Staff.
193. Full details of the work done is given in Tables in the Appendix. The total number of visits made was 19,026, compared with 12,896 in 1912, and 11,814 in 1911.
194. I am also pleased to report that 144 "Health Talks" were given to School Children, and 10 Lectures to Midwives.

MIDWIVES ACT, 1902.

195. The work under this Act has been carried out on the same lines as previously, and I consider, very efficiently. 725 visits were made for the purpose of inspecting the Midwives, their appliances, and for other causes. At the end of the year the number of Midwives in practice in Warwickshire was 195, a reduction of 39 on the previous year. Of the 195, 89 were trained, so that although the total number of Midwives in practice is less, the number of trained Midwives is larger. We have done, therefore, something very considerable in improving the standard of the Midwives of the County.
196. Equally important is it, that as a result of the advice, exhortation, and instruction given by the County Staff, the untrained Midwives also carried out their work on much better lines than hitherto. I believe in fact that in many instances at the present time quite a reasonably good standard of work is maintained by the untrained Midwives.
197. Some interesting remarks were made in a Report to me by Miss Houghton, who was in charge of the Tamworth and Atherstone Division. She says:—"The year's experience goes to show as plainly as in the past the absolute necessity for constant super-

vision of Midwives whether trained or untrained, for even the best of them are inclined to relax their standard unless regularly visited, while in a number of cases nothing but the constant vigilance of the Inspector will keep them up to the mark as regards cleanliness and observance of the Rules of the Central Midwives' Board. It is encouraging to feel however, that while exercising with due severity one's function of Inspector, one can yet be accepted in that equally necessary function of friend and adviser by the Midwives under one's charge, who have shown themselves at all times ready to ask and take advice as to their duties towards their patients and their practice generally." This, I think, puts the matter very accurately for the whole County.

198. The recording of temperature and pulse rates has been much better than formerly, though looking at some of them I am convinced they must not be regarded in all instances as strictly accurate.
199. In only one case was a removal from the Roll effected, but six Midwives resigned voluntarily, 4 died, and 4 removed from the County.
200. Five cases of Puerperal Fever were notified in the practice of Midwives during the year. In each case, the Midwife was visited at the earliest possible moment, a Report was made to me by the District Medical Officer of Health as to the question of any conditions likely to be operative in causing the disease, while special care was taken by the Inspector of Midwives, to superintend personally the disinfection of the Midwives and their appliances.
201. I am pleased to say that a grant was given from the Higher Education Rate, of £150, for the training of Midwives, and in many instances Midwives have been trained under definite conditions as to service, etc., by the Nursing Associations of the County, to the immense advantage of all concerned.
202. I have not heard of any real difficulties as to obtaining Medical help as required by the Act.
203. The following notifications have been received during the year:—Stillbirths, 100; Sending for Medical Help, 370; Death of Mother or Child, 23; Laying out of dead, 46.
204. It is interesting to be able to record that out of the 7,557 births registered in the County during the year, no less than 4,296 cases were attended by Midwives alone. It will thus be seen that over 56 per cent. of the Births in the County were attended by Midwives alone. It is obvious, therefore, how important it is that the practise of these women should be regulated, and their qualifications guaranteed in the interests, and safety of, Mother and Child.

METEOROLOGY.

205. In the Tables at the end of the Report will be found two giving Meteorological observations taken at Sutton Coldfield and Leamington respectively. I find that the mean temperature at both places was higher than in the previous year. At Sutton Coldfield the mean temperature for the year was 48·4, compared with 47·1 in 1912, while at Leamington the mean temperature was 50, compared with 49·4 in 1912. As regards rainfall, there was a marked diminution at Sutton Coldfield, where the fall for the year was 26·29, compared with 35·21 in 1912, and at Leamington the total was 25·05, compared with 35·67 in the previous year. Though the quantity was so much less in 1913, the number of rainy days was not reduced in proportion. As regards sunshine, at Sutton Coldfield the total bright sunshine registered was 1,184 hours, compared with 1,157 in the previous year, and at Leamington there were 1,166 hours, compared with 1,077 in the previous year. The interest of these observations lies in their dealing, as far as I am concerned, with the public health. Though theoretically 1913 was hardly so favourable for general sanitary conditions as was the previous year, yet owing to the fact that no very high summer temperatures were registered for lengthened periods, on the whole it was a fairly satisfactory year climatically, while the diminished rainfall made it much more pleasant from the point of view of the average resident.

ADULTERATION.

206. During the year 578 samples were submitted by the various Inspectors, including the three Food Inspectors of the County, and the two Inspectors for the Rugby Urban and Rural Districts. Of the 578 samples submitted, 42 proved to be deficient in quality, giving a percentage of 7·2 per cent. of adulteration upon articles submitted. This is an improvement on the previous year when the figure was 8·1 per cent.

207. The only cases out of the ordinary which may deserve a word of comment, were two connected with samples of Malt Vinegar, purchased at Nuncaton, upon which I reported as follows in my Report for the quarter ended 30th June last year:—"Two cases of interest have occurred in connection with samples during the quarter. The first case was one of malt vinegar, purchased at Nuneaton. The vendor pleaded 'Warranty, and proceedings were taken against the wholesale dealers—a large London firm—for false warranty. Though the accuracy of the deductions in the Certificate was impugned, no evidence of a scientific nature was offered for the defence, but after the Magistrates had heard the case, the demand was made that the reserved sample should be sent—as allowed by the Amendment Act—to Somerset House for reference. The result of such reference was to confirm the Certificate, for while the original Certificate alleged that 30 per cent. of the vinegar at least was not derived from malt or malted grain, the Somerset House Certificate stated that at least one-third was not so derived. A fine of £7 and costs was inflicted. Notice of appeal was given on certain technical points, but up to the time of writing no Appeal has been entered.

208. "It is a matter for great congratulation that this case was carried to a successful issue, because since the Report presented to the Local Government Board, by one of the Staff, on the composition of vinegar, though no definite standards have been laid down, it is now possible to take proceedings in cases where the sample is sold as malt vinegar, but where the acid is derived from less expensive and less suitable material.

"The other case is one in which a sample of milk purchased at Henley, was found to contain $5\frac{1}{2}$ per cent. of added water. The facts are as follows:—The Birmingham City Authority made a complaint that milk sold in Birmingham was adulterated. The vendor pleaded that he received the milk from a farmer in the County. In consequence of this, the farmer's milk was sampled by the County Inspector, on delivery, and this was also found to be adulterated. A subsequent sample taken by the Inspector at the time of milking of the cows, proved to be of normal quality. Proceedings were therefore taken against the farmer, at Henley, but after a lengthy hearing, the Magistrates found themselves unable to convict, on the ground that it had not been shown that any particular pecuniary advantage was to be gained by selling such milk."

209. On the whole, I am of opinion that the Acts are very well administered throughout the County. A sufficient number of samples is purchased, but I think it would be advisable if at times, other Local Inspectors, in addition to those working for the Urban and Rural Districts of Rugby, were to submit to the County Analysts a few samples, supplementing the work done by the County Inspectors.

FACTORY AND WORKSHOPS ACT, 1901.

210. The Tables issued by the Home Office in connection with this Act, are given in all the District Reports, from which it appears that proper attention is given to the supervision of these places.

SPECIAL DEATH RATES.

211. Again, as I have done for some years past, I give below in tabular form, the figures showing the death-rates from Typhoid Fever, Diphtheria, and Scarlet Fever, during the last ten years:—

	Typhoid Fever.	Diphtheria.	Scarlet Fever.
1904.	0·07	0·18	0·10
1905.	0·04	0·14	0·05
1906.	0·07	0·16	0·05
1907.	0·07	0·13	0·05
1908.	0·02	0·17	0·06
1909.	0·03	0·13	0·05
1910.	0·03	0·13	0·10
1911.	0·03	0·08	0·12
1912.	0·02	0·06	0·08
1913.	0·02	0·10	0·07

212. This table can again be regarded with satisfaction, as the Typhoid Fever is equal to the lowest rate ever recorded, the Scarlet Fever rate is below the average and lower than the last three years, and the Diphtheria rate, though slightly higher than the last two years, is below every other year in the decade.

CONCLUSION.

213. In paragraph 1 of the Report, I record the fact that this is the twenty-fifth I have had the honour of making on the health of the County of Warwick, and trust in the last paragraphs it is not altogether inappropriate to consider whether or not at the end of a quarter of a century's work results have been achieved commensurate with the labour, expense, and trouble entailed.

214. I have had prepared a Table herewith appended, showing the Birth, Death, and Zymotic Rates, for each year in the record, and also rates from Tuberculosis and Typhoid Fever, and finally, the rate of Infant Mortality. The Table need not, I feel confident, be considered in any sense an official apologia.
215. Referring to the Birth-rate, it will be seen that it has fallen from something under 30 to 24, and one may again call attention to the fact that in 1913 it is considerably higher than it has been for four years, though for the last three years, there has been a considerable increase.
216. Our Death-rate, which in the first ten years of the period averaged 16·04, has fallen during the last ten years to 12·71, or in other words, the fall of the Birth-rate has been almost entirely compensated by the saving of life owing to the reduction in the Death-rate.
217. During the first ten years, our Death-rate from the seven principal Zymotic Diseases averaged 1·60; in the last ten years 1·05. In other words, it has been reduced over 50 per cent. Many of the diseases included are at present difficult to regulate; but if we take only those over which Sanitation has acquired some hold, the result would be even more satisfactory. Coming, however, to particular diseases, we find that during the first ten years of the period, the rate from Typhoid Fever per 1,000 persons, was ·105. On the last ten years this rate has gone down to 0·04. In the latter period, therefore, there has been less than half that of the former period, while if we take the last *five* years, the reduction has again been double, for during the last five years, the mortality from Typhoid Fever has only been one quarter that of the first ten years after the County Council came into being. It has long been acknowledged that Typhoid Fever is the best single criterion of Sanitary condition, and therefore much value must be attached to this figure.
218. Coming to Tuberculosis, during the first ten years of County Council history, the average Death-rate per 1,000 persons estimated to be living in the County was 1·05, a Rate closely in accord with that of the Country. During the last ten years the figure has been 0·74, a very marked diminution, while if we take the last two years, they have been 0·59 and 0·58 respectively, a figure very much below the average figure for England and Wales. In reply to this, it might be said that in claiming reduction of the great scourge of Consumption, one is claiming too much, as it has only been during the last year or two that much has been done in a preventive sense to reduce this scourge, and that even now, arrangements are far from complete. In answer to that, I would urge that in Warwickshire, owing to the fact that for years we were the only County Council to undertake in any real sense of the word, Domestic Hygiene, steps have been taken to deal with and reduce the ravages of Consumption, and it is an interesting fact, taken for what it is worth, that the death rate from Consumption began to decline from the time that our Staff of Health Visitors was appointed.
219. Finally, let me call attention briefly to our record for Infant Mortality. For the first ten years the average Rate was 136 per 1,000 Births. During the last ten years, the average was 103, while for the last five years, the figures have been 97, 89, 115, 79 and 88 respectively. In 1911 the increase was due to an epidemic of Infantile Diarrhœa, caused by a heat which almost made that year's a record summer. It will be seen, therefore, that when conditions were as adverse as possible to Infant life, the figure reached was not in any way comparable with the average of the first ten years of County Council history.
220. These are facts taken from the records of past Reports. They afford an answer to any adverse criticism of County Council sanitary work, and without further elaboration may be left eloquently to give their own message.

221. The Table referred to is given below :—

Year.	Birth Rate.	Death Rate.	Zymotic Death Rate.	Tuberculosis.	Typhoid Fever.	Infant Mortality.
1889.	27·92	15·07	1·71	1·14	0·12	128
1890.	27·15	15·98	1·30	1·10	0·07	134
1891.	29·18	17·89	1·58	1·09	0·13	130
1892.	28·72	16·72	1·33	1·06	0·10	132
1893.	29·45	17·40	1·79	1·06	0·19	138
1894.	27·60	14·07	1·19	1·06	0·05	123
1895.	29·04	16·85	1·42	1·18	0·06	143
1896.	28·54	14·90	1·82	0·94	0·11	136
1897.	28·70	15·23	2·00	0·99	0·09	144
1898.	28·33	16·31	1·88	0·97	0·13	151

Year.	Birth Rate.	Death Rate.	Zymotic Death Rate.	Tubercu- losis.	Typhoid Fever.	Infant Mortality.
1899.	27·98	15·93	1·94	1·03	0·25	142
1900.	27·00	16·72	1·76	0·99	0·22	142
1901.	27·84	14·48	1·40	0·81	0·13	133
1902.	27·07	13·45	1·08	0·66	0·09	116
1903.	26·34	13·69	1·15	0·91	0·04	125
1904.	26·96	14·18	1·48	0·80	0·07	133
1905.	25·58	12·87	0·90	0·72	0·04	109
1906.	25·70	13·50	1·49	0·80	0·07	124
1907.	25·08	12·48	0·84	0·78	0·07	99
1908.	25·70	12·80	0·87	0·83	0·02	100
1909.	24·40	13·03	0·89	0·77	0·03	97
1910.	23·70	11·60	0·75	0·80	0·03	89
1911.	22·80	12·60	1·70	0·77	0·03	115
1912.	23·10	12·00	0·80	0·59	0·02	79
1913.	24·17	12·12	0·87	0·58	0·02	88

222. In addition, however, to statistical records, it must not be forgotten that in the quarter of a century of County Council existence, despite great increases in population, such attention has been given to the purification of sewage, that no deterioration in the general character of the River water is shown, while in some instances, notably the Tame and the Cole, marked improvement can be satisfactorily demonstrated.
223. The County has been fortunate, too, in the results of efforts made to equip it with reasonable and proper Isolation Hospital accommodation. Though no doubt in many instances, Institutions existing are not ideal, yet they serve their purpose, and it can be stated now, that practically every district in the County is equipped with isolation safeguard against disease.
224. Finally, I may be pardoned perhaps, in expressing the opinion that the carrying out of the scheme I have drawn up, and which has been adopted, for dealing with Tuberculosis as a whole, will still further reduce the mortality and sickness from the greatest plague still existing in our latitudes.
225. This work which has been accomplished, has been done on account of the appreciation of the value of Sanitation by the Members of the County Council, as also by the loyalty with which the service of my staff has been ungrudgingly given. A large proportion of the work is done by those who do not come much into the public eye, but all the same, it would be unfair and improper, did I not take this opportunity of expressing my indebtedness to everyone concerned in my Department, for the ready help and self sacrifice always afforded. To my County colleagues too, and to the Staffs of the District Councils, my thanks are equally due for the efforts which each has given to make the general machinery run easily and smoothly.

I have the honour to remain,

My Lords and Gentlemen,

Your obedient Servant,

A. BOSTOCK HILL, M.Sc., M.D., D.P.H., Camb.,

County Medical Officer of Health;

SUMMARY OF ANNUAL REPORTS OF THE DISTRICT MEDICAL OFFICERS OF HEALTH.

U R B A N D I S T R I C T S .

BULKINGTON.

226. Dr. LIONEL ORTON estimates the population as 1,896.
227. The high Birth-rate of 38·5 per 1,000 is recorded.
228. The Death-rate was 17·4 per 1,000, as against 16·0 per 1,000 in 1912.
229. There were 11 deaths of children under one year, giving an Infantile Mortality of 150 per 1,000 births registered.
230. The Zymotic death-rate is 1·5.
231. With reference to Water Supply, Dr. ORTON says :—"The Council has entered into an agreement with Mr. Newdigate, M.P., to purchase 1,000 square yards of land at Weston, and when the construction of the Sewage Outfall Works is commenced, the Water Scheme will be pushed on with."
232. A scheme for Sewerage has now been prepared, at an estimated cost of £8,000.
233. "The Seavenging of the District," Dr. ORTON says, "is now being thoroughly done, the ash-pits, etc., being emptied as often as required, or upon receipt of notice in writing from the Inspector or from any occupier or owner."
234. With regard to Housing, Dr. ORTON states that no case of over-crowding has been reported, and no Closing Orders were made, and although an Inspector was appointed under the Housing Regulations, no Report had been sent to him.
235. The Notification of Births Act has been adopted during the last year.
236. Two cases of Diphtheria were notified, one of which ended fatally. There were no cases of Scarlet Fever.
237. Three cases of Pulmonary Tuberculosis were notified.
238. With regard to Sanitary Inspection, Dr. ORTON says that no report has been received from the Sanitary Inspector.

VITAL STATISTICS.

Population.	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infant Mortality per 1,000 Births.
1,896	38·5	17·4	1·5	150

KENILWORTH.

239. Dr. TANGYE estimates the population to be 5,970.
240. He says :—"The town is chiefly residential, but there is a large artisan population. The latter to a great extent find employment at Coventry, but labour is also employed in the Urban District itself at two brickyards, a tannery, a fellmongery, and several large market gardens."
241. The Birth-rate was 20·53, slightly above that of 1912, and very much above the average of recent years.
242. The Death-rate was 13·0, but if corrected for age and sex distribution by the Registrar General's factor, the figure is 11·5, a very satisfactory rate.
243. Nine deaths of infants were registered during the year, giving the very low mortality rate of 60 per 1,000 Births.

244. Sixty-eight cases of Infectious Disease, exclusive of Tuberculosis, were notified during the year, as compared with 9 during the previous year. These consisted of 40 of Typhoid Fever, 19 of Diphtheria, 3 of Erysipelas, 5 of Scarlet Fever, and one of Puerperal Fever. Of course the main point in connection with the prevalence of infectious disease was the outbreak of Typhoid Fever which occurred at the end of the year. Reporting on this, Dr. TANGYE says :—

“*Typhoid Fever.*—After a long period of freedom from this disease a case occurred in February. A second case was notified on 18th October, a third on 22nd November, a fourth on 27th November, and a fifth on 5th December. With the possible exception of this last case, as already mentioned, exhaustive enquiries failed to connect any of these preliminary cases with each other or with any common cause such as the water supply. From 13th December up to the end of the year 35 further cases were notified. The total number of cases in the epidemic which are to be attributed to the infection of the water supply must therefore include these latter 35 cases as well as 4 others notified in January, and one other notified in December in another District, but which originated in Kenilworth. The total number of cases in the epidemic was thus 40.

“Although many of these cases were not notified until long after the date when the water supply was presumably infected, as previously described, there is very little doubt that they all received the infection at the end of November or during the first few days of December, with the exception of one case which was probably infected from a previous case. In this connection it is of interest to observe that the incubation period of typhoid fever is accepted generally as about 14 days, although it may occasionally vary from 8 to 23.

“Only one case proved fatal before the end of the year, but 5 further patients succumbed after the close of the year.

“At the end of November and early in December a large proportion of the population of all ages were affected quite suddenly with more or less severe gastro-enteritis. The onset of this epidemic corresponded in the majority of the cases with the probable date of pollution of the water supply as above described, allowing for a short period of incubation. the epidemic was, however, by no means confined to the town, large numbers of persons being similarly affected at about the same time in adjacent villages, and in more remote parts of the County, where it was attributed by doctors to influenza. Some Kenilworth residents who habitually consumed large quantities of water were unaffected, whilst others suffered who took none.

“A large amount of bacteriological work was undertaken to establish the cause of this outbreak, but the only definite conclusion reached was that it was not of a typhoidal nature. Rather more than half of the forty typhoid patients whose illness must be attributed to the water supply had previously suffered from an attack of the prevailing gastro-enteritis, whilst the rest had been free from this affection.”

245. Nineteen cases of Diphtheria were notified at various times during the year, and in various parts of the town. The cases were mostly mild, and careful search was made, especially at the Schools, for infectious contacts, who were excluded from School attendance until free from infection.

246. The following table shows the extent to which the County scheme has been utilized for bacteriological examinations at the Birmingham University :—

		Positive.		Negative.		Total.
Diphtheria	...	15	...	42	...	57
Enteric Fever	...	23	...	28	...	51
Phthisis	...	1	...	7	...	8

247. It appears that the District was extremely free from Non-notifiable Infectious Diseases, and no Schools were closed on this account during the year.

248. As regards Tuberculosis, Dr. TANGYE reports that 18 new cases were notified during the year, 8 being of Phthisis and 10 of other forms of this disease. Only three deaths were due to it, all being cases of Phthisis.

249. Referring to the Sanitary circumstances of the District, and dealing with the Water supply, Dr. TANGYE says :—

“The town is supplied by the Kenilworth Water Company, the estimated number of houses connected to their mains being 1,274, affecting 5,258 of the total population of the District. There still exist about a dozen private wells in use within the town. In the rural parts shallow wells are the only source of supply.

"In my last Annual Report I gave some details as to the sources of supply at the Waterworks. These details were given by the Water Company, but with regard to the adit were inaccurate, as was also the return on the same subject made by the Company to the Local Government Board in 1911. The adit is now presumed to be about 300 feet long, and on measurement at the man-hole its crown was found to be 10 feet and its floor 16 feet below the surface of the ground, the floor of the adit being about 5 feet below the bed of the brook which runs roughly parallel to the adit. There is an overflow into the brook which may at times have acted as an inlet. Mr. Hill, geological adviser to the Local Government Board, who made an inspection during the recent typhoid epidemic, reported with regard to the adit as follows:—

'It is obvious that it is liable to receive water from the stream by percolation through the sandstone, and that the distance is too small to admit of efficient filtration.'

"The adit, which was constructed in 1884, has been the chief source of supply to the town, the other sources consisting of two deep bores, the older bore, sunk in 1894, being 226½ feet deep, and the newer bore, sunk in 1909, being 265 feet deep.

"On 22nd November I received information of the occurrence of a number of cases of gastro-enteritis, and although from the information then available there was no other reason to suspect the water supply, it seemed advisable on account of these cases of gastro-enteritis to have both chemical and bacteriological examinations made. Samples were submitted the same day, with the following results:—

COUNTY ANALYSTS' LABORATORY,
BIRMINGHAM,

December 1st, 1913.

RESULTS EXPRESSED IN PARTS PER 100,000.

Free and saline ammonia	...	...	...	...	...	trace
Organic Ammonia	...	...	...	...	...	0.006
Chlorine in Chlorides	...	...	...	...	...	2.4
Nitrogen in Nitrates and Nitrites	...	...	...	...	...	0.33
Oxygen absorbed in four hours at 80 F.	...	...	...	...	...	0.033
Total Solid Matter	...	...	...	...	...	42
Hardness—						
Temporary	...	...	...	...	...	18.5
Permanent	...	...	...	...	...	10.0
Total	...	...	...	...	...	28.5

REMARKS.—Few large, many small particles.

'In appearance it was not at all satisfactory. It contained few large and many small particles, and was not bright and clear.

'The Chemical results showed that the figure for Organic Ammonia is rather too high, as is also that of Oxygen absorbed.

'By this we do not intend to suggest that the water should be condemned as unsafe for use, but we are distinctly of opinion that the conditions discovered in this sample are such as to make us think that the water should be regarded as open to some slight suspicion.

'We would point out that it is a well established fact that it is extremely difficult to state when a Public Water Supply is only analysed at very rare intervals whether it is safe or not. The minute differences shown by samples when examined at regular intervals enable opinions on the quality to be much more weighty.

Yours faithfully,

(Signed)—BOSTOCK HILL & RIGBY,
County Analysts.'

THE UNIVERSITY,
BIRMINGHAM,

December 1st, 1913.

'I have to report that this sample of water exhibited a considerable amount of bacteriological impurity.

'The number of organisms present in it reached 60 per c. c. at 37 degrees C., and 500 per c. c. at 20 degrees C. The varieties present included some objectionable kinds such as liquefiers of gelatine and bacillus coli. These were present even in one c.c. of the sample, and indicate a contamination, probably with sewage, which should be removed.

‘The sample was further examined for organisms connected with special diseases such as typhoid fever and dysentery, but neither the Bae. Typhosus nor any of the dysentery bacilli were isolated. Some non-lactose fermenters were present, one of which resembled Morgan’s Bacillus.

‘The examination shows the necessity of some search for the source of impurity either at the well or in the course of the pipes to the place of sampling.

(Signed)—C. J. LEWIS,

The University Pathological Department, Birmingham.’

“I submitted these reports to the District Council on 2nd December, and fully explained their significance. I advised that samples should be immediately submitted from each of the sources of supply separately and fully analysed as quickly as possible, so that the polluted source could be identified and abandoned. If this step had been taken at once, definite information as to which source was polluted would have been available within two or three days, but there was considerable delay in taking further analyses, and it was not until 16th December that the supply from the adit was finally discontinued. Thereafter the two deep bores, which have yielded continually good analyses, were the only sources of supply. As the result of the receipt of two notifications of typhoid on Saturday, 13th December, and one on Sunday, 14th December, I issued on 15th December, with the consent of the Chairman and Vice-Chairman, a notice to the public urging the boiling of all water before use.

“In the light of the subsequent events there is very little doubt that the adit was polluted with the specific infection of typhoid fever from the adjacent stream which had received on 17th November the overflow of the sewer in Odiborne Close. This sewer was receiving the sewage from certain houses where typhoid fever was being nursed.

“Previous to the group cases of typhoid just mentioned, four other cases had occurred in the town since the beginning of October, but with one possible exception, exhaustive enquiries both at the time and subsequently failed to connect the origin of these cases with the public water supply.

“Under the personal supervision of Dr. Houston, of the Metropolitan Water Board, a thorough disinfection of the whole of the water works system was begun on 20th December and completed with all possible despatch.

“Samples of water have since been submitted by the Council from the mains for chemical and bacteriological examination at short intervals, and the following are typical results. These show the water which is now derived entirely from the boreholes to be of excellent character.

‘SAMPLE OF KENILWORTH WATER,

UNIVERSITY BACTERIOLOGICAL DEPARTMENT,

BIRMINGHAM.

‘I have to report that this sample was free from contamination with sewage, and that none of the tests applied to it disclosed any impurity. Its character were those of a good drinking water.

(Signed)—C. J. LEWIS.’

‘COUNTY ANALYSTS’ LABORATORY,

BIRMINGHAM.

RESULTS EXPRESSED IN PARTS PER 100,000.

Free and Saline Ammonia	...	...	...	...	0.0003
Organic Ammonia	...	...	...	...	0.0016
Chlorine in Chlorides	...	...	...	...	1.95
Nitrogen in Nitrates and Nitrites	...	...	...	...	0.16
Oxygen absorbed in four hours at 80 F.	...	...	...	...	0.009
Total Solid Matter	...	...	...	...	45
Hardness—					
Temporary	...	...	...	...	15.6
Permanent	...	...	...	...	11.0
Total	...	...	...	...	26.6

REMARKS.—Bright, few small particles.

‘This water was quite satisfactory in a chemical sense, and showed characters almost identical with the last sample or two submitted.

(Signed)—BOSTOCK HILL & RIGBY,

County Analysts.

"I would draw particular attention to the remarks of the Local Government Board Geologist, Mr. J. B. Hill, in Dr. Manby's Report with regard to the deep bores:—

"The danger of contamination from proximity of the river or from subsoil drainage, to which the water in the adit is exposed, does not exist in the case of the deep-bore wells. The depth of these wells is very great, and the strata through which they pass is not fissured, so that assuming that they are adequately protected by their linings to a sufficient depth, there is practically no risk of polluted water gaining access to them."

"With this statement the opinions of all experts, so far as I know, is in complete accord.

"Dr. Manby concludes his Report with a series of valuable suggestions, which are now engaging the consideration of the Council. There can be no doubt that the community would greatly benefit by the transfer of the works to the Council, which question is raised by Dr. Manby. Undoubtedly the control of the works should be vested in the Sanitary Authority, on whom is the responsibility of the public health."

250. As regards closet accommodation, Dr. TANGYE says that of the 1,448 houses of the District, 1,299 are estimated to be connected with the sewers. There are only three instances of dry disposal within the sewered area, and these are under notice. The town is fortunate in the completeness of its water-carriage system, and also in the very general provision of proper flushing cisterns.

251. He calls attention to fifteen houses known as Crackley Cottages, lying outside the sewer area, and provided with pail closets, and says:—"It would be desirable for the Council to undertake the scavenging of these conveniences since it is the common experience that the work is not satisfactorily done by cottagers themselves, and danger of pollution of the wells at these cottages may arise."

252. As regards Housing, there has been continued progress in the matter of Inspection, 88 houses having been inspected, as compared with 59 in 1911 and 52 in 1912. Of the 88, 14 were found to be unfit for habitation and 14 Closing Orders were made. In 21 cases defects in houses were remedied without the making of Closing Orders, and in 6 after the making of Closing Orders, they were put into a fit state for human habitation.

253. Referring to the main defects found, Dr. TANGYE says:—"The main defects found in housing, besides defects in the actual structure of walls, roofs, floors, windows, etc., were insufficient bedroom lighting and ventilation, absence of proper food cupboards, and inadequate wash-house and seullery accommodation. In one row of two-bedroomed cottages, although the front bedroom could be made moderately satisfactory, the back bedroom consisted merely of the back portion of the same room partitioned off and obtaining light and ventilation only by a small window or skylight. The best course from most points of view would have been to have removed the partition and converted the houses into single-bedroomed houses; but this was considered by the Council too drastic a step, and arrangements were made for a suitable window to be inserted at the back, or a large skylight in those cases where the back wall of the house abutted upon the property of another owner who objected to the insertion of windows."

254. He calls attention to overcrowding discovered during the Inspection, and gives particulars of eight cases which were abated during the year.

255. Referring to the difficulty of finding houses experienced by dispossessed tenants, Dr. TANGYE says:—"The Council has been led to consider seriously the question of themselves providing additional housing accommodation. A site has been provisionally obtained with the purpose of erecting 24 three-bedroomed cottages, to be let at from 4s. 3d. to 4s. 9d. per week, and it is hoped to proceed with this scheme without delay. These will undoubtedly meet a pressing demand, and remove much of the present difficulty in dealing with unfit houses. From the Inspector's Report it will be seen that 12 new small houses and cottages came into occupation during the year. The supervision over the construction of new houses is carried out by the Surveyor, and the drainage is submitted to a water test before passing."

256. Dr. TANGYE shows that the Hospital accommodation is quite satisfactory, and gives a list of Adoptive Notices which have been adopted by the Urban District Council.

257. The Report also contains one from the Surveyor and Sanitary Inspector, giving full details of the work carried out in his Department.

258. I should like to testify to the good work done here in the supervision of the Sewage Disposal Works. These have been maintained at a high level and whenever visited have been found to be working very effectually.

VITAL STATISTICS.

Population.	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infant Mortality per 1,000 Births.
5,970	25.3	13.0	0.33	60

LEAMINGTON.

259. Dr. GIBBONS WARD commences his report with a statement of the Physical Features of the District, and explains that generally speaking the sub-soil is porous, and also says that the Town itself is notable for open spaces and wide roads.
260. As regards the social conditions, he states that the Town is mainly a residential one, the number of Works and Factories being very small.
261. He estimates the population at the middle of the year as 26,671, practically the same as last year.
262. Four hundred and fifty-nine Births were registered, giving a Birth-rate of 17·2 per thousand, 0·55 below that of the previous year. In tabular form he shows that the Birth-rate in the North-East and South-East Wards was much higher than in the other two. As regards illegitimate births, 22 were registered, giving a Rate of 4·7 per cent. of all Births.
263. The number of Deaths registered was 378, giving a Death-rate of 14·2 per thousand. This Death-rate is lower than that of the previous year. If this, however, is corrected by the factor of correction issued by the Registrar General, it will be seen that the standardized rate is only 11·8 per thousand.
264. One hundred and eighty-nine deaths occurred in persons 65 years and upwards, of which 103 were in persons aged 75 years and upwards.
265. The Zymotic Death-rate was 0·71, a figure considerably higher than in the previous year.
266. The rate of Infant Mortality was 80·6, rather higher than in the previous year, but still, on the whole, a fairly satisfactory rate. Apart from 1912 and 1910 it shows the most favourable result recorded. The most frequent causes of deaths amongst infants are Marasmus, Premature Birth, Bronchitis and Pneumonia. Referring to this, Dr. GIBBONS WARD says:—"One notices with great satisfaction the continued low Death-rate from Diarrhœa and Enteritis."
267. He refers at some length to the Infant Welfare Work carried on in the Borough, and says:—"The basis of all our work in this direction is the Notification of Births Act, which was early adopted by this Authority. Generally speaking, the provisions of this Act have been well observed, though it has been necessary in some few cases to write and remind parents of their statutory obligations in the matter."
268. Referring to the work of the Health Visitor, Miss Pierce, he says:—"The Health Visitor, Miss L. E. Pierce, has continued her excellent work during the past year, having paid 823 visits to homes, where she saw 246 children. Owing to the fact that she also acts as School Nurse, the efficiency of the work suffered to some extent, as the three duties of visiting under the Notification of Births Act, acting as School Nurse, and visiting Tuberculosis cases in the Borough give more work than one person can undertake and carry out quite satisfactorily. For this reason further visits to babies, which would undoubtedly have been advisable in certain instances, have had to be abandoned. One might here mention that the Infant Health Society, which meets weekly, and at which the Health Visitor is present, provides an excellent opportunity for her to see some cases which otherwise she would be unable to see. This is, of course, open to the serious objection that by this means she cannot appraise the home conditions, but under the circumstances I fear this is unavoidable.
- "Of the 459 Births notified, 245 were attended by Medical Practitioners and 214 by Midwives.
- "We have this year, as the result of the Card System adopted, a complete record of the conditions found, and though this is of minor importance in comparison with the good done by the Nurse's visits, yet it gives an indication of the extent to which mothers take notice of the advice given to them, and for that reason is worthy of consideration.
- "The Health Visitor reports as follows:—Of the 246 children visited, 208 were wholly breast-fed, 19 were fed by both breast and bottle, and 19 were fed by bottle only. This gives 85 per cent. of children fed in a natural manner, and is, I think, a sign that the advice given has not fallen wholly on deaf ears.

"The question of the type of bottle in use is of importance, because undoubtedly the bottle fitted with a long tube is unhygienic and liable, owing to the difficulty, or rather the impossibility, of cleansing, to infect the food in such a way as to cause Diarrhœa and kindred ailments. Our efforts are always directed towards persuading the mother to adopt the boat-shaped bottle, and I am glad to say that in most cases the efforts have been crowned with success.

"It is rather disconcerting to notice the continued use of 'dummies' or 'comforters,' and though endeavours have not been spared to try and persuade mothers to abandon the use of what, in many cases, is simply a breeding place for harmful organisms, yet on the second visit one often finds that the use of the dummy has again been reverted to."

269. He speaks of the good work done by the Infant Health Society, though he cannot give any figures as to the actual work carried out. He says, however "I am convinced that this Society is carrying on a work in the instruction of mothers the importance of which it is difficult to over-estimate, and a considerable amount of the improvement which one can record in the feeding and other treatment of infants is without doubt due to its influence."
270. Referring to Infectious Disease, Dr. GIBBONS WARD says [that there was a considerable increase in the number of cases of Scarlet Fever, and he shows that out of 81 cases in the West Ward and South-East Ward, 46 had apparently arisen from one child, allowed by ignorant parents to play about while showing a bright Scarlatinal Rash. In addition, 11 cases occurred at the Warneford Hospital, 7 arising from one child who was admitted for another condition; 84 of the 92 cases were removed and treated at the Heathcote Isolation Hospital.
271. DIPHTHERIA.—Thirty-three cases of this disease were notified, of which 31 were removed to Hospital. Two cases proved fatal. The majority of the cases occurred in the South-East Ward, mainly in the vicinity of Clapham Terrace School. Dr. GIBBONS WARD says every effort was made by the swabbing of contacts and the examination of children at School, to prevent the occurrence of further cases, but throughout the last six months of the year there was a steady flow of notifications, most from the District above named.
272. Only three cases of Typhoid Fever were notified. One notification was subsequently withdrawn by the Doctor.
273. Dr. GIBBONS WARD records that Ophthalmia Neonatorum was made notifiable in January, but no cases were notified during the year.
274. One case of acute Anterior Poliomyelitis occurred. This was also made a compulsorily notifiable disease in November, 1912. This one case was specially inquired into, but no reason could be adduced as to the source of infection.
275. Measles numbered 224 cases, and Whooping Cough 91, and it is largely owing to these diseases that the Zymotic Death-rate was raised, as 9 deaths occurred from Measles and 2 from Whooping Cough.
276. Dr. GIBBONS WARD shows that there have been 38 deaths from Cancer and Malignant disease during the year.
277. He deals fully with the work done to reduce the prevalence of Tuberculosis and shows that 55 cases were notified, and that for the past year the statistics for the first time furnish a criterion of the amount of Tuberculosis in the Borough. In connection with this subject, Dr. GIBBONS WARD says:—"In spite, however, of this extension of Compulsory Notification, I am bound to say that I think there must be a considerable number of cases of which we are unaware. I make this statement for two reasons, firstly, because I have found in certain instances that the medical practitioner does not realize his obligations, and, secondly, because there have been several cases of a somewhat chronic nature which, from the very familiarity and chronicity of the complaint, have never received this attention. In certain instances I have become aware of cases, and have required notification, only to be asked with surprise whether the case has not already been notified."
278. He shows also that the proportion of males and females affected was about the same, and calls attention to the fact that one cannot help but be struck by the large proportion of indoor workers suffering from this disease, and says especially is this true in connection with women carrying out household duties only.

279. Of the 55 cases, 37 occurred in four and five-roomed houses, though he says that generally speaking the housing conditions were fairly good, but in several instances there was evidence of dampness, and in 12 the building was in a poor state of repair. The majority of the defects have since been remedied. Out of the 55 cases, in 16 the patients did not have a separate bed, and in 11 others though they had a separate bed they did not have a separate bedroom. He shows what has been done for the control of the disease, including disinfection, the loaning out of sputum flasks and shelters, and referring to treatment, says:—

“The one result of the National Insurance Act which is most in evidence to a Health Department is undoubtedly that it has given facilities, never before possible, for the treatment of Pulmonary Tuberculosis. This treatment in Warwickshire, at any rate, has not been confined solely to insured persons, but has been extended to the dependants of insured persons. By so doing the Insurance Committee have been carrying out to the full extent of their powers the recommendations of the ‘Astor’ Committee.

“Thirteen only of our notified cases were insured persons, and 11 of these have received Sanatorium Benefit. Seven have been sent to Sanatoria for treatment and, what is almost as important, instruction has been given in the art of living in their infectious state with the least danger to others. Four have received Domiciliary Treatment. One case refused Sanatorium Treatment.

“The question arises as to how the other cases were dealt with. A certain number have received attention, as of old, from the Warneford Hospital, others from their private medical practitioner, and others have had open-air treatment at the Warwick Infirmary. A few cases, however, were in need of specialised treatment and could not obtain it. They will in the future doubtless receive the attention of the Tuberculosis Officers to be appointed by the County Council. These cases undoubtedly form the weakest link in the chain which has been forged for the cure and consequently the prevention of Tuberculosis.”

280. It appears that 754 specimens of swabs from throats, sputa for Tuberculosis, pus, urine, blood, hair, skin, etc., were examined in the Municipal Laboratory.

281. He deals with the Water Supply and shows that with the exception of 14 wells the water supply for the whole of the District is derived from the new Red Sandstone, and says that though showing a considerable degree of hardness, it is pure and excellent for potable purposes.

282. He records that arrangements have been made for both Bacterial and Chemical Examinations to be made quarterly.

283. The Common Lodging Houses were all duly inspected, 216 visits being made to them, and three notices were served for minor repairs.

284. There are 25 Slaughter Houses in the Borough, 6 licensed and 19 registered. In No. 2 District one new Slaughter House was licensed. Generally speaking the Slaughter Houses have been kept as clean as their structural arrangements and conditions would allow.

285. The only Offensive Trade carried on in this District is Tripe Dressing, and no complaints have been made.

286. Referring to the provision of a Public Abattoir, Dr. GIBBONS WARD says:—“The question of the provision of a Public Abattoir has fallen somewhat into abeyance of late, but I am of opinion that it should engage the earnest consideration of this Authority. I am aware that this question is a difficult one, but having regard to the situation and structural arrangements of some, one might say most, of the Slaughter Houses in the town, it is evident that the trade is not carried out under the best conditions.”

287. There are 84 Dairies and Milkshops and 10 Cowsheds in the Borough. All Milch Cattle are inspected by the Veterinary Surgeon, and during the past year his reports have been invariably favourable. Five notices were issued for the cleansing and lime washing of Cowsheds, and nine in respect of Dairies and Milkships. The notices were all complied with.

288. He deals with the Prevention of Adulteration under the Sale of Food and Drugs Acts, and shows that 85 samples were submitted to the Public Analyst during the year. Of these, one sample of Milk was found to be deficient of 13 per cent. of fat. No preservatives were found in any of the Milk samples.

289. As regards work done under the Housing and Town Planning Act, 1909, he reports that the work has been continued on the same lines during the past year, and says it is but fitting to recognise the efforts which the Sanitary Inspectors have made to carry out the spirit of the Regulations.

Referring to this subject, Dr. GIBBONS WARD says :—" With the recent reawakening of interest in housing has come recognition of the fact that it is a most serious and difficult problem; the further one goes into the matter, the more is one impressed with this difficulty. In Leamington Spa the question of the Housing of the Working Classes, as in other towns, faces the Corporation. In some ways the problem to be solved is not so serious as in other Districts, but, such as it is, it calls urgently for consideration, and must be faced. Generally speaking, our housing conditions are not bad. Building has certainly not been carried out on Town Planning lines, the houses are ugly and arranged in long rows, but their structural arrangement and condition, apart from certain instances, has been capable of improvement, and has undergone such improvement since the passing of the Housing and Town Planning Act of 1909; this improvement will undoubtedly continue. There are, however, a certain number of houses which are incapable of being put into a really healthy condition, either from structural faults or position; they are referred to in the Special Report appended. These houses are old, and have no doubt paid their former possessors well. The fact that their demolition will to some extent press hardly on their present owners is not denied, but the duty laid on this Authority is obvious, and this duty must be carried out in the future as it has been in the past. The necessity for closure admitted, then two difficulties present themselves: (1) Where are the tenants disturbed to find new dwellings, and (2) Where are they to find houses at approximately the same rental as they have been in the habit of paying. These points will be dealt with later, but I would here like to make a few remarks with reference to the second point.

" In Leamington Spa, generally speaking, there are comparatively few men getting more than a labourer's wage. The factories employing skilled labour are few, and the number of men employed in them proportionately small. It is to the man earning low wages that the cheap, though perhaps unhealthy, cottage appeals, wholly because of its cheapness, and it is this class who will be displaced by the closure of our worst houses. The problem in its simplest aspects therefore resolves itself into the provision of cottages of a rental of not more than 3s. 6d. to 4s. 6d. per week. Should the rental be more than this the tenant will be called upon to pay a sum which will be a wholly disproportionate burden on his total earnings."

290. Three hundred and seventeen houses were inspected under Section 17 of the Act. Of these, 9 were found unfit for habitation and 9 Closing Orders were made. The chief defects found were dampness and dilapidation in six cases. The houses were put into a fit state, after the making of Closing Orders.
291. The Report deals with the structural conditions found and the defects noted, very fully, and shows among other things that 47 houses had damp walls, in such a condition to be prejudicial to health.
292. The average number of persons in each house was 3.88.

293. Summing up the work, Dr. GIBBONS WARD says :—" It will be realised that the work done has entailed a very considerable expense on the landlord, and the only comment one can aptly make here is that it seems somewhat of a pity that he has to bear the whole of the responsibility, none being laid on the tenants to keep the houses in a reasonable condition, after repairs or improvements have been carried out.

" The total of 256 houses which have been repaired, and 95 which are at present undergoing repair, represents an enormous amount of work on the part of the Sanitary Inspectors for it is often found that owners require several letters and visits before they will commence the work, and whilst it is in progress further visits are necessary to ensure that the repairs are being carried out in a proper manner and in accordance with the notice sent.

" The list of work done will explain itself, without the necessity for further comment."

294. He includes in the Report a Special Report on the Sufficiency of Housing Accommodation, made on the 3rd March of this year, and says :—" The general conclusion which one might draw from this Report is, that the number of houses at present existent is no more than will supply bare accommodation for our population, and any steps which are taken to improve the conditions, by the closure of the worst dwellings, will result in a definite shortage. If one peruses this special report, one will find that the demolition of 32 houses, which really should be dealt with at an early date, being incapable of being repaired on an economic basis, would result in a shortage of 5 houses, since there are only 27 empty.

"These figures, however, only very insufficiently express the position. In all districts it is recognised that in order to ensure that the tenants shall have the hygienic conditions to which they are entitled, there must be a small surplus of houses; in other words, there must be a few empty. Take the position as it stands at present, a tenant makes complaint of some defect which it is the obvious duty of the landlord to remedy. If the landlord hears that this complaint has been made he promptly gives the tenant notice to leave. I am not speaking here without experience; this has occurred in many cases. Where is the tenant to go; he knows well that he cannot get another house, so that he is constrained, by fear of being driven from his house, from informing us, or complaining to the landlord, of certain conditions. If he should inform us, we have to take special precautions to prevent the landlord from learning who has given the information.

"Another reason is that rents, just like the price of any other commodity, rise if the supply is short, and this is exactly what obtains here in Leamington Spa. I am of opinion that rentals here are somewhat higher than those in other towns, for similar accommodation, and yet the circumstances are if anything worse."

"These remarks do not apply to all houses, the landlords of many, to my knowledge, have not raised the rents of houses occupied by old tenants, for many years; on the other hand, it has been found that others have taken advantage of the shortage of accommodation to raise rents to a disproportionate degree.

"It has been stated that the necessity for more houses has arisen solely from the influx of workers from Coventry, who will return there as soon as they can get houses near to their work. This may be so to a small extent, but one has to recognise two things, firstly, that the problem facing Coventry is so vast that they cannot hope for many years to cope with their population; in the meantime, what are these men, who after all are ratepayers of Leamington Spa, to do? Again, many of the Coventry workers are natives of Leamington Spa, or the sons of natives, and their removal is unlikely, or in the latter case, will cause little alleviation of our difficulty."

"Taking into consideration these facts, I am of opinion that a small Housing Scheme, say the erection of 30 houses to let at rentals of between 3s. 6d. and 4s. 6d. per week is essential, and the question as to whether some of these houses could not be built on the Flat System, to let at lower rentals, should receive your earnest consideration."

295. The Report deals very fully and clearly with the local administration of the Factory and Workshops Acts, and the Shops Act, and concludes with a very full and valuable statement as to the Meteorological Readings in the Borough, dealing with Atmospheric Pressure, Temperature, Sunshine, and Rainfall, for each month of the year.

VITAL STATISTICS.

Population.	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infant Mortality per 1,000 Births.
26,671	17.2	14.2	0.63	80

NUNEATON (BOROUGH).

296. Dr. GRAY MAITLAND estimates the population at 39,636.
297. The Birth-rate was almost identical with that of the previous year, namely 29.4.
298. The net Death-rate belonging to the District was 11.7, which is 0.4 higher than in the previous year. If, however, this Death-rate be standardized by the figure supplied by the Registrar General, corrected for age and sex distribution, the rate appears to be 12.3.
299. The Zymotic Death-rate was 1.3, compared with 1.6 and 2.0 in the previous years, and this therefore is extremely satisfactory. Altogether 55 Zymotic Deaths were registered.
300. As regards Infant Mortality, 122 deaths of children under one year of age were registered during the year, giving a rate almost identical with that for the previous year, namely 104. Referring to this, Dr. GRAY MAITLAND says:—"The Infant Mortality Rate of any District is a very good index of Sanitary Administration and Social Conditions, and it is an absolutely reliable and accurate rate, being founded on the proportion of the number of deaths under one year of age during a given period, to the number of births during the same period. It is not subject to any errors involved in estimating population."

Referring further to this, Dr. GRAY MAITLAND says :—" In order to diminish Infantile Mortality matters of great importance to which attention should be given are : The welfare of the mother both before and after the birth of her child, the proper feeding of her infant, the general sanitary condition of the district, and the improvement of the housing conditions."

301. It appears according to the report that the Nuncaton Maternity Society have completed another year of their useful work, and Dr. GRAY MAITLAND embodies their report in his own. It appears 74 cases were assisted during the year. In most of these the members paid in 12/6 by instalments, and later in the year 15/- owing to the higher fee charged by the midwife, with which the Society paid the doctor and midwife, where needed. In each case the member received coal, grocery and linen. In 12 emergency cases members received the ordinary benefits when they had paid nothing. The Committee report that they have appointed Mrs. Capel as Assistant in Maternity Work, at a salary of £20 per annum.
302. As regards the Sanitary circumstances of the District, the Report gives details of Analyses made by the County Analysts of Public Water Supply, and also 6 samples from private wells, which in five cases were condemned as unfit for use.
303. As regards the question of closet accommodation, Dr. GRAY MAITLAND reports that 48 Wet Ashpits were abolished during the year, and 95 Water Closets substituted for Privies. He states that it is estimated that there are 521 fixed Ashpits in combination with Privies in the Borough, but a large proportion of these are beyond the limits of the Sewerage system. In addition to these, there are 1,116 fixed Ashpits not in combination with Privies, and 5,320 movable receptacles of galvanized iron, with proper covers, and these are required by the Borough Council to be provided in all new houses.
304. Ashpits are emptied on receipt of a notice, and Dustbins are emptied weekly. Covered carts are used, but in the case of wet ashpits, these are emptied in the street or yard, efforts being made afterwards by washing down with disinfecting fluid, to cleanse the surface.
305. The night-soil is all deposited on tips, and thence carried away by farmers. There are three such tips, all remote from dwelling houses.
306. The house refuse is destroyed in the Refuse Destructor.
307. Referring to Schools, Dr. GRAY MAITLAND says the condition of the Elementary Schools is good, that they are all supplied with tap water, and with one exception all have water closets in use, but at Galley Common there are Ashpit Privies. The School is considerably beyond the limits of the Sewerage system.
308. He reports that there are 22 Slaughter Houses in the Borough, of which, however, only 20 are in use. These are reported to be kept generally in good order, no complaints having been made. Eleven of them are registered and eleven licensed.
309. There is a Public Abattoir, but at the present time two one-third shares are vacant.
310. Much activity seems to have been displayed in looking after Meat and Food, and a list of articles condemned during the year is given in the Report. It would appear that no less than 20cwt. 26lbs. of Meat and Fish were condemned.
311. There are 36 Bakehouses in the Borough, none of which are under-ground, and they have been found in a very satisfactory condition.
312. Referring to the Milk Supply he says that the Milk Shops, Dairies and Cow Sheds have been found in a fairly satisfactory condition. He refers to the chief nuisance noticed in connection with the Cow Sheds, namely the large accumulation of manure in close proximity to them.
313. As regards the prevalence and control over acute Infectious Diseases, the Report shows that 323 notifications were received during the year, compared with 514 in 1912. All necessary disinfection is carried out by the Health Department on the termination of the illness. As regards the nature of the disinfection, it is stated that the walls and floors are sprayed, and the rooms disinfected by Formaldehyde Vapour. In addition there is a Steam Disinfector at a Special Station, and the infected articles are taken there in the "Infected Van" and taken back in the "Non-infected Van"; 2,211 articles were disinfected during the year.

314. Scarlet Fever was only responsible for 198 cases, compared with 400 in the previous year. Seventy-seven of these cases were removed to the Isolation Hospital. The home cases appear to be treated by a Nurse under the superintendence of the practitioner by what is known as the "Milne" method of treatment.
315. There has been an excellent record as regards Typhoid Fever, not a single case having occurred during the year.
316. Whooping Cough was fairly prevalent, 9 deaths being registered from it, all under five years of age.
317. There was a slight increase in the prevalence of Diphtheria, 34 cases being reported, compared with 20 in the previous year. Seven of these cases proved fatal. All the deaths occurred in persons under 15 years of age.
318. Referring to Diphtheria, Dr. GRAY MAITLAND says :—"Of the thirty-four cases notified throat swabs were taken in 14 cases, 10 of which were returned as Positive and four Negative, the majority of which I took myself in School cases.
- "In twenty cases no Bacteriological confirmation was sought. One cannot help but deplore the fact that not only in Nuneaton, but generally speaking, there is a disinclination on the part of Medical Practitioners to take throat swabs in cases which, from a clinical point of view, are Diphtheria.
- "If there is one thing certain in Bacteriology it is that the presence of the Diphtheria Bacillus is positive proof of the disease, and its absence is negative proof.
- "From the point of view of the Sanitary Committee the fewer notifications of Diphtheria we receive the better, but on the other hand a medical man may have a suspicious case which he decides later (without any Bacteriological proof) is not Diphtheria. It is quite possible, however, that the case was a true Diphtheria all the time, and a means of conveying the disease to others, to say nothing of the risk such a patient runs from Cardiac or other complications by getting about too soon.
- "I mention one case which occurred early in January, this year. The patient, a School child, was sent down to my Office. She appeared to have an ordinary Tonsillitis, not very bad. I took a throat swab and the result was Positive. She was referred to her Medical Attendant. I visited her home for the purpose of advising her parents about isolation, and to find out if any more children attended school. There was a boy at home. "He had had a bad throat, but was quite well." I took a swab from him, also Positive. I told the mother to bring the children to me when they were pronounced well in order to send a re-admission notice to school. She did so. I took swabs from each, and the report came back "Girl Positive," "Boy Negative." At intervals of a week I have taken three swabs from the girl and she is STILL a carrier. I think a case like this emphasises the importance of Bacteriological proof."
319. Antitoxin is supplied free by the Authority, and Dr. GRAY MAITLAND reports that Medical men avail themselves of this valuable means of treating the disease.
320. As regards Tuberculosis, Dr. GRAY MAITLAND shows that 55 cases were notified of Phthisis, and 22 of other forms, while 26 deaths were registered from Phthisis, 6 from Meningitis, and 6 from Tuberculous conditions.
321. Dr. GRAY MAITLAND shows that Sanatorium accommodation has been provided by the Local Authority at Tuttle Hill, where 8 patients can be treated. This small Institution has received the approval of the Local Government Board for the treatment of Insured Persons suffering from Tuberculosis, under the National Insurance Act.
322. The Local Authority have also made an agreement with the Warwickshire Insurance Committee by which the Committee retain the use of four beds.
323. At the Nuneaton Workhouse Infirmary, two Balconies have been built, off which is an inner Ward. Dr. GRAY MAITLAND says it would be possible to treat five or six persons on these Balconies, which are admirably adapted for this purpose, and there is accommodation for three patients in each of the inner wards, should it be thought inadvisable to treat such patients in the open. Pauper cases are treated here, and in addition other cases; non-pauper can be treated after recommendation and sanction by a special Committee of the Board of Guardians. For these patients a small charge may be made according to circumstances.

324. The Borough Council have also purchased six Shelters during the year, for erection in patients gardens or other suitable places.
325. Dr. GRAY MAITLAND also records that Sputum Flasks and Disinfectants are supplied gratuitously, the former by written request of the County Health Visitor, who he says does excellent work in visiting and re-visiting these cases, and instructing them as to the proper hygienic conduct of a person suffering from this disease. A leaflet—as quoted in the Report—has also been issued, giving simple directions to consumptive persons.
326. As regards the Sanitary Administration of the District, the staff consists of the Medical Officer of Health, Chief Sanitary Inspector, and Assistant Sanitary Inspector.
327. At the Isolation Hospital there is accommodation for 30 cases of Scarlet Fever, as well as those referred to under the heading of Tuberculosis.
328. Several pages of the Report are devoted to the question of Housing. A Special Report was presented to the Committee towards the end of the year, which shows the accommodation in the various Wards. Shortly, the Report says that there are approximately 8,064 houses in the Borough, nearly 6,000 of which are at, and under, a weekly rental of 6s. 6d. Referring to this, Dr. GRAY MAITLAND says:—

“The average number of persons per house, worked on the Census figures, rather tends to show that over-crowding is not prevalent in the Borough, though it must be admitted that it is lacking in information with regard to the number of rooms per house. This information is given in a Census Return for Warwickshire, which is not yet obtainable, but which I hope to obtain as soon as it is published. Again, figures showing the average number of persons per house, though quite reliable at the time the Census was taken, may have varied owing to the natural increase, immigration or emigration. The only means of ascertaining correct details with regard to this is to take the Local Census. In my opinion, at the present time, the chief increase in population is the natural increase, that is, the excess of births over deaths. It is impossible to make any reliable statement as to the balance between immigration and emigration. First among our immigrants I place miners, a proportion of whom are single men, and probably non-householders. Again, one must mention those engaged in the teaching profession, who are not all householders, and who form approximately 250 of the adult population. Of the various industries in the town I think it may be fairly stated that Home Labour is mostly employed.

“As School Medical Officer, I examine a large number of children leaving School, 300 in the past six months, the great majority of whom, girls and boys, are going straight to work in the town. I do not think, therefore, that the balance between immigration and emigration is a large one annually.

“Reverting again to the Report, I am bound to state that at the time it was compiled, and at the present time, there were, and are, no void habitable houses at a weekly rental of from 6s. 6d. downwards in the Borough. Looked at from this point of view, and bearing in mind the number of marriages taking place, one is forced to the conclusion that there is a shortage of houses for the low wage-earning members of the community. It is not houses at 6s. 6d. or even 5s. per week that will completely solve this difficulty, it is a question of houses at a lower weekly rental than these, and here no private enterprise (unless philanthropic) nor Municipal, can build to let at such a rental without incurring financial loss. It is not my province to discuss, in this Report, the pros and cons of Municipal Housing, that is a matter for the Borough Council. It is my duty to state, I consider there is at the present time a shortage of houses for the low wage-earning members of the community.

“At the time of writing there is reasonable expectation that this shortage is likely to be met by the provision of houses as a result of private enterprise.

“During the year 349 houses have been visited for the purpose of the Housing Act, 1909; in 269 of these defects found have been dealt with, being principally of a minor character.”

329. The Report concludes with Tables referring to Vaccination, the administration of the Shops Act, Meteorology, etc., with a Summary of the Sanitary work done in the Nuisance Inspector's department during the year. This shows that much activity has been displayed, upwards of 6,000 Inspections having taken place.

VITAL STATISTICS.

Population.	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infant Mortality per 1,000 Births.
39,636	29·4	11·7	1·3	104

RUGBY.

330. Dr. TANGYE deals at first with the general character of the District as regards Geological formation and the occupation of the inhabitants.
331. He estimates the population for the year to have been 22,620, a rise of 240 during the year.
332. The Birth-rate was 20·6, which is higher than in any year since 1908.
333. The Death-rate was 10·6, which is slightly above the average for the previous five years. Corrected, however, by the sex and age factor of the Registrar General the Rate would be 11·3, and is for such a District undoubtedly a good rate.
334. Thirty-nine deaths of Infants were registered, giving a rate of Infant Mortality of 84 per 1,000 births, on the whole a satisfactory rate for a community like that of Rugby.
335. As regards Infectious Diseases, 102 cases of acute infectious disease were notified during the year, a larger number than occurred in either of the three previous years. Of these, 21 were due to Diphtheria. Six of the cases occurred at one of the School Boarding Houses, 4 at another, and one at another. Since then the School has been free except a case among the staff of the last-named house. It is very interesting to note that none of the cases proved fatal.
336. Anti-toxin is supplied free by the Sanitary Authority for use among the poorer patients of the District.
337. Fifty-nine cases of Scarlet Fever occurred, 37 of them being in separate houses. Two of the cases proved fatal.
338. Five cases of Typhoid Fever were notified, of which one proved fatal. Two of them were isolated at the Harborough Magna Hospital and one at the Hospital of St. Cross.
339. There were two Puerperal Fever cases, one of which proved fatal.
340. A case of Cerebro-spinal Meningitis—commonly known as Spotted Fever—was notified and the following Report was sent by Dr. TANGYE to me in the month of November:—
- “A youth aged 16 years, who had followed no employment for some seven months previously on account of his general health, was given work at a local building firm on October 20th last. On October 29th his employer sent him home, as he appeared unfit for work. He later complained of pain in the teeth, which were much decayed, and was sick. On November 1st he had severe pains in the back, and was delirious; he was admitted to the Workhouse Infirmary on that day.
- “The case at first appeared to be one of tubercular meningitis, but on about November 5th, in addition to all the usual signs of meningitis, morbilliform spots began to appear, especially in the back. A specimen of cerebro-spinal fluid was obtained and submitted to Professor Leith, of Birmingham University. He reported on the 8th instant that the diplococcus intracellularis had been found, and later that a typical culture had been grown from the fluid.
- “The patient died on the 9th instant, and the Guardians made arrangements for cremation of the body. No post-mortem was made.
- “I met Dr. Krumbholz on the 10th instant, and with him arranged for stringent precautions at the Infirmary both as regards destruction and disinfection of all bedding and clothes used by the patient and the special nurse employed by him, and also for the disinfection by formalin sprays of the room occupied by the patient and the segregation for a period of three weeks of all the other patients in the ward to which the case was first admitted, as well as of the special nurse.
- “Careful enquiries at the patient's home, which is fairly clean, do not give any clue as to the source of the disease.
- “The rest of the patient's family will be kept under observation as well as the contacts at the Workhouse Infirmary.
- “The course of this case was so acute, and all the characters of the disease so marked, that it appeared to me wise to take every precaution lest it should prove more than a mere sporadic case.
- “Fortunately no further case was contracted from the one described.”
341. A case of Acute Poliomyelitis in a child of three years of age was also notified, the patient recovering with a certain amount of deformity.

342. Dr. TANGYE shows that the County Scheme for free Bacteriological examination was well taken advantage of, 33 specimens from Diphtheria patients, 12 from Typhoid Fever, and 114 from consumptives being submitted.
343. As regards Non-notifiable Infectious Disease, Dr. TANGYE says :—There have been a few scattered cases of measles and whooping cough during the year, resulting in one death from each disease. There was, however, no great prevalence at any time, and the widespread epidemic of 1912 had completely subsided with the close of that year. The town will no doubt continue to be free from measles for a time until a fresh set of children have arisen who are unprotected from the disease by a previous attack.”
344. As regards prevalence and control over Tuberculosis, 77 new cases were notified, 52 of Phthisis and 25 of other Tuberculous diseases. Twenty deaths were certified as due to Tuberculosis, compared with 12 in 1912 and 22 during 1911.
345. As regards the Sanitary circumstances of the District, the Report deals with the Water Supply, and Dr. TANGYE says that with the exception of a few private wells used for purposes other than drinking, the whole of the town is supplied from the Council’s mains. The bulk of the water is obtained from the filtration plant at the Avon Waterworks, the rest being obtained from the collecting area in the gravel bed at Barby Road.
346. Dr. TANGYE says :—“ Since the close of the year the Water Committee have had the whole position under careful consideration and have taken active steps in connection with enlargement of the filtration plant and the preservation of the river from pollution. A further most desirable addition to the works would be the provision of a large storage area for the preliminary treatment of the river water before filtration, and this is also under the consideration of the Council. Such storage is regarded by experts as of as great importance as filtration in the purification of river-water, and should certainly form part of the equipment of the Rugby Works.”
347. He also reports that the Sewerage Works have given very satisfactory results.
348. He reports that closet accommodation on the whole is quite satisfactory, there being only about ten closets in the whole Urban area not on the water carriage system, these being in situations where it is impossible to provide sewers.
349. Scavenging is carried out weekly, and with the exception of 20 instances all the houses are provided with movable ashpits. The refuse is dealt with at the Destructor.
350. One carcase suffering from Tuberculosis was voluntarily surrendered.
351. The work under the Housing Act Regulations was very energetically carried out, no less than 668 houses having been Inspected, a number more than double that of the previous year. No Closing Orders were made but 219 houses had defects remedied without the making of any Closing Orders.
352. Overcrowding was not very marked, in fact only three cases were observed and were remedied.
353. Dr. TANGYE reports that in connection with the housing of the working classes, the two large engineering works used certain of their premises for the temporary housing of imported workmen during the recent strike, and he reported on this matter as follows :—
 “ Temporary accommodation for Workmen at Messrs. Willans and Robinson’s Engineering Works.
 “ I have to-day inspected, in company with the Sanitary Inspector, the temporary accommodation for workmen at Messrs. Willans and Robinson’s engineering works, and find the following conditions :—
 “ TEST DEPARTMENT OFFICES.—*Room No. 1*, 3,117 cubic feet, four beds, fair ventilation. Recommendations : cleanse and white-wash ; if more beds are to be provided present furniture should be removed.
 “ *Room No. 2*, 4,372 cubic feet available, seven beds, ventilation not quite satisfactory. Recommendations : cleanse and white-wash, and improve cross-ventilation.
 “ ARMOURY.—*Room No. 1*, 1,559 cubic feet, four beds, fair ventilation.
 “ *Room No. 2*, 1,169 cubic feet, two beds, fair ventilation.
 “ *Room No. 3*, 4,207 cubic feet, fifteen beds, fair ventilation if passage door is kept open. Recommendations : reduce number of beds to fourteen, and arrange the passage door is kept open all night.
 “ All the Armoury rooms are 8-ft. 3-in. high, whereas the Building Bye-laws require 8-ft. 6-in.

"LOWER FLOOR OF MESS-ROOM.—14,700 cubic feet available, but floor space is reduced by the presence of rows of baths with screens, forty-four beds, cross-ventilation unsatisfactory. Recommendations: improve cross-ventilation by outside electric fan to run all night, and ensure that doors in bath screens and all windows are kept open. It would also be an advantage if the beds were placed further apart.

"The water supply, washing accommodation, mess-room, and sanitary conveniences are sufficient. If the recommendations mentioned above are carried out, as I understand they will be, and the common lodging house minimum standard of 300 cubic feet bedroom space per person observed, together with proper cleanliness, the arrangements cannot be regarded as detrimental from a health point of view for a short period.

"Temporary Accommodation for Workmen at Messrs. The British Thompson-Houston Engineering Works.

"I have to-day inspected, in company with the Sanitary Inspector, the temporary accommodation for workmen at The British Thompson-Houston Works.

"I find that the top storey of Building No. 6 is being utilised for this purpose. This room is 160-feet by 52-feet, with a maximum height of 21 feet. It is well ventilated and provides ample cubic space for the 62 men for whom beds are provided, although I was informed that only 42 men are at present installed.

"In the same room, mess-room and lavatory accommodation is arranged, and I have found all the details satisfactory from a health point of view for 62 men for a short period.

"The stipulated conditions were complied with by the two works concerned, and no ill results from a public health point of view were observed."

354. Referring to Hospital Accommodation, Dr. TANGYE says:—"The new Isolation Hospital erected at Harborough Magna, in the Rugby Rural District, by the Rugby Joint Hospital Board, provides sixteen beds, and I understand is prepared to admit scarlet fever, diphtheria, and typhoid fever.

"Extensions of the staff accommodation have been in progress during the year, as well as various other structural improvements.

"Sixteen cases of scarlet fever, 4 of diphtheria, and 2 of typhoid fever were admitted during the year from the Urban District.

"The Small-Pox Hospital of sixteen beds, which is situated at Lawford Heath in the Rugby Rural District, serves the same combination of Districts as the Hospital just mentioned, and is under the control of the same Board. This Hospital is kept in constant readiness for the reception of patients, but none have been admitted during the year.

"I am glad to be able to report that the provision of a steam disinfecter has been favourably re-considered by the Council, and there is every hope of its being shortly erected near the site of the refuse destructor, the waste steam generated at the Destructor being used to work the disinfecter. It is proposed to carry out disinfection of bedding not only for the Urban District, but also by agreement for the Rural District and Joint Hospital Board."

355. I cannot point out too strongly the importance of the erection of the proposed Disinfecter. It would make disinfection available for a large and important District and consequently would be of great value.

356. Appended to the Report is one from the Surveyor and also one from the Sanitary Inspector, giving particulars of the work done in his department, with full details as regards Inspection of Slaughter Houses, Dairies, Cowsheds and Milkshops; the Sale of Food and Drugs Acts, the Factory and Workshops Act, Housing and Town Planning Act, and Common Lodging Houses.

VITAL STATISTICS.

Population.	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infant Mortality per 1,000 Births.
22,620	20·6	10·6	0·44	84

BOROUGH OF STRATFORD-ON-AVON.

357. Dr. THOMSON estimates the population as 8,582.
358. The Birth-rate is 20·1 per 1,000.
359. The Death-rate, corrected, is 12·01.
360. The Infantile Mortality is 40·4 per 1,000 registered births.
361. Twenty cases of Scarlet Fever were notified and 18 sent to Hospital.
362. Six cases of Diphtheria were notified, one ending fatally, when nursed at home. Five of the six cases were sent to Hospital.
363. One case of Enteric Fever was notified, defective drainage being discovered.
364. Referring to the Housing and Town Planning Act, the Report shows that 90 houses were inspected and one Closing Order made. Dr. THOMSON says :—"There is good evidence that further building by the Town Council of working men's dwellings, as carried out in 1912, would fill a want and afford opportunity for dealing with any overerowing, and I understand that a proposal to erect a considerable number will shortly come before your Council."
365. The Water Supply is discussed at full. Dr. THOMSON says :—"The Stratford Water Supply from the mains is the rain-fall on the upland agricultural ground, nearly all grazing ground. There are several farm houses and several cottages and one residential house. The soil is clay, and apart from evaporation, the rainfall goes direct to the reservoir.
- "The Waterworks Committee has recently adopted the painstaking method of regular periodic visits to the gathering ground, and I do not think I am traversing their joint opinion if I say that the whole subject of ensuring a safe water supply to the town lies in providing that no waste water or soakage from inhabited dwellings and farm buildings has access to the reservoir. With this in view a scheme has been brought forward to sewer all these to a point outside the gathering ground. An alternative scheme of doing away entirely with habitable and farm buildings in the area seems impracticable. I am by no means sure that it is not the wiser course, for farming in any real sense of the word means manuring of the fields and consequent washing to some extent of the manure constituents into the watercourses. . . As to the adoption of a system of water purification by chemical filters, with or without the addition of chemicals, there is little question that the Borough water supply would be benefitted by this. At times the water has a discolouration after passing through sand filters and is somewhat cloudy, and these conditions, which I have no reason to consider in any way injurious to health, are naturally unsatisfactory to the consumers. . . To conclude, it must be held that if the dwellings, etc., on the gathering ground are sewered as suggested, and the water mechanically filtered after passing through sand filters, a degree of purity of water and a safety to its consumers should be ensured far beyond the results obtainable in many centres of population where, with waters known to be dangerous in their crude state, filtration similar to what we are about to adopt is considered sufficient safeguard."
366. Twenty-three cases of Tubercular Disease were notified during the year.
367. Referring to Scavenging, Dr. THOMSON says :—"The house to house scavenging, as carried out by the Corporation, leaves little to be desired, but greater provision of covered receptacles for household refuse would assist in preventing the spread of disease by means of flies.

VITAL STATISTICS.

Population.	Birth-rate.	Death-rate.	Zymotic	Death-rate.	Infant Mortality per 1,000 Births.
8,582	20·1	12·01		0·2	40·4

SUTTON COLDFIELD.

368. Dr. BOSTOCK HILL estimates the population as 20,919.
369. The Birth-rate is 19·41, only three births being illegitimate.
370. He reports that, speaking generally, the Notification of Births Act has been a great success. Continuing he says :—"It has not been altogether as great a success as it should have been, because in some instances notifications have not been sent in by

Medical Practitioners present at the birth. I have several times in the latter part of the year called your attention to these omissions, and I would appeal to all Medical Practitioners in the Borough to give that assistance which has been so generously afforded in the past in all matters pertaining to Public Health, in helping the Sanitary Authority to carry out their work in connection with the reduction of Infant Mortality. I do not ask that intimation should be made to everyone mentioned in the Act, and I shall be perfectly satisfied if the Practitioner attending will take the necessary steps to see that the father or guardian notifies within the stipulated period."

371. The corrected Death-rate for the District is 10·97.

372. There were 29 deaths of children under one year of age giving an Infant Mortality Rate of 71 per 1,000 births. The causes of these infant deaths were as follows:—Whooping Cough, 1; Tuberculous Meningitis, 1; Meningitis, 2; Bronchitis, 2; Diarrhœa and Enteritis, 3; Congenital Debility, Malformation and Premature Birth, 13; Violent Deaths, 2; other causes, 5.

373. The Zymotic Death-rate was 0·38 as compared with 0·48 the previous year.

374. There were 169 notifications of Scarlet Fever, only one case proving fatal. Fifty-eight cases were removed to Hospital.

375. Measles was not particularly prevalent, although two deaths were registered from this cause in children between one and two years of age.

376. Thirteen cases of Diphtheria were notified. Referring to the taking of swabs, Dr. BOSTOCK HILL says:—"Altogether 22 swabs were taken, and of these 18 proved to be negative. I am glad to be able to state that an extended use is now being made of the facilities given to Medical Practitioners by the County Council of verifying the cases."

Referring further to Diphtheria, he says:—"I may add that I have personally investigated each case as notified, visiting the premises and making all enquiries."

377. Two cases of Typhoid Fever were notified, and neither proved fatal.

378. With reference to Diarrhœa, Dr. BOSTOCK HILL says:—"It is extremely satisfactory, indeed one of the most satisfactory features, to be able to state that, though we had a somewhat dry and normal summer in a meteorological sense, yet not only was there no increase but an actual decrease in Diarrhœa mortality. This, therefore, I think may be ascribed to the long continued work of the County Council Health Visiting Staff. With the exception of a small part of a Rural District outside, Sutton Coldfield has now practically the advantage of the whole time of a Health Visitor, and although it is impossible for her to visit every house where her presence would be desirable, the large amount of work she has performed has produced an atmosphere which has a marked effect on the population of the Borough as a whole. The three deaths from Diarrhœa occurred respectively in Maney, Walmley and Wylde Green Wards, and all of them were in infants under one year of age."

379. Thirty-three cases of Phthisis were notified, and three of other forms of Tuberculosis, and the death-rate from Phthisis was 0·62. Ten of these cases were in Insured Persons, six of whom obtained Sanatorium benefit. Four patients succumbed to this disease during the year.

380. Cancer accounted for 24 deaths, as compared with 23 the previous year.

381. Referring to isolation of Scarlet Fever, Dr. BOSTOCK HILL is of opinion that in a Borough like Sutton, it is not to the public sanitary interest that wholesale isolation should be effected. Continuing he says:—"I need hardly add that in every case where want of accommodation is found for the patient at home, or where food is prepared, or laundry work undertaken, or the inmates are engaged in any occupation in which there is an undue risk of conveying infection, isolation is insisted upon. I have been extremely gratified with the result of the system I have employed during the year in that the increased prevalence of Scarlet Fever noticed in the autumn months, became amenable in a short time, more so in fact I believe, than if universal isolation had been attempted."

382. Five Schools were closed during the year on account of the prevalence of Infectious Disease; all of them for Measles.

383. Public Seavenging is now carried out in accordance with modern requirements, in practically the whole of the populous part of the Borough. Referring to this Dr. BOSTOCK HILL says :—"Although I speak with satisfaction of the work done in the populous parts, I still consider that the interests of the Borough as a whole would be advanced by the extension of the scheme to the whole of the Borough area. Certain parts of Walmley, Whitehouse Common and Little Sutton are so populous over a small area that I consider it important that the idea of cleanliness should be encouraged among the inhabitants, and this can, I am quite certain, be accomplished by the Corporation setting the example by the removal of waste matter."
384. The Public Water Supply is reported to have been quite satisfactory during the year. Twelve private wells have been analysed, and pollution found to exist in eight of these.
385. Two cases of over-crowding were reported.
386. The Slaughter Houses have been frequently inspected and all found satisfactory.
387. Only one Offensive Trade, that of Tripe boiling, is carried on now in the Borough, and this satisfactorily.
388. The Dairies and Cowsheds have all been inspected, and their cleanliness is stated to be much more marked than formerly.
389. With reference to Housing and Town Planning, 613 houses have been inspected during the year, and three Closing Orders made. Referring further to this matter, Dr. BOSTOCK HILL says :—"I am very pleased to be able to report that the method of dealing with defects in houses has been standardized, in that at each monthly meeting of the Committee, a list of all houses inspected presented in tabular form, shows all defects discovered, and these defects are submitted to the Committee, the Chairman signing the Property Register, and the Inspector is authorised to give informal notice in the first instance, to all owners and agents, to have defects remedied. If these are not complied with at the next meeting of the Committee formal notices are issued, and these are followed up until the necessary work is done."
389. The report also deals with Vaccination, Factories and Workshops and Meteorology, and in conclusion Dr. BOSTOCK HILL says :—"The one point I would call attention to, as requiring special attention, is the complete abolition of water closets without cisterns. Only four of these are left, and I trust that immediate steps will be taken to provide proper flushing arrangements. The few privies also left in that part of the Borough where sewers are available, should also, in my opinion, be replaced during the year."

VITAL STATISTICS.

Population.	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infant Mortality per 1,000 Births.
20,919	19.41	10.97	0.38	71

WARWICK.

390. Dr. TANGYE estimates the population to be 11,910.
391. The Birth-rate is 22.3, a little below the average for the last five years.
392. The Death-rate is 14.9, the standardised death-rate being 12.9.
393. The Infantile Mortality is 94 per 1,000 births.
394. The Public Water Supply at Hasleley and the Woodloes Dr. TANGYE pronounces as perfectly satisfactory. He urges, however, the advisability of submitting samples for analysis quarterly, instead of half-yearly as is customary at present.
395. With reference to Sewerage, Dr. TANGYE reports that a Local Government Board Inquiry has been held with regard to the proposed scheme for improvements in the delivery and treatment of the sewage, but the work has not been put in hand yet.
396. House refuse is disposed of at a tip at "The Cape," but another tip will have to be acquired as this is nearly filled up.
397. With reference to food inspections, Dr. TANGYE says :—"There are 11 Milkshops, 17 Dairy Farms, and 3 persons who have milk-rounds only. In only one instance during the year was a milk vendor found to be selling adulterated milk, and in this case a fine was imposed by the Magistrates."

398. One Slaughter House was unsatisfactory during the year, and legal proceedings were taken owing to nuisance caused. This has since somewhat improved.
399. Under the Housing Regulations, 211 houses were inspected during the year, and 16 were found unfit for human habitation. Ten Closing Orders were made, six of these being put into repair by the owners.
400. Referring to Housing, Dr. TANGYE remarks :—" A large amount of work remained however, to bring the housing of the Borough generally up to a satisfactory standard of habitability. The commonest defects found to exist were, as in previous years, damp walls, inadequate ventilation, dirty interiors, defective floors and external paving, defective sanitary accommodation, and absence of sinks and food cupboards. Mention has previously been made of the two large blocks of back-to-back houses, both of which have been improved, although the undesirable structural features remain."
401. Ten instances of over-crowding are reported, all of which were remedied at least temporarily.
402. The Heathcote Hospital received during the year sixty-three cases of Scarlet Fever, five of Diphtheria, and three of Typhoid Fever.
403. Sixty-eight cases of Scarlet Fever were notified during the year, and owing to this Coten End School was closed for three weeks in May.
404. Six cases of Diphtheria were notified and all recovered.
405. Five cases of Enteric Fever were notified, but all with one exception were infected outside the Borough.
406. Forty-seven cases of Tuberculosis were notified during the year, 33 of Phthisis and 14 of other Tuberculosis disease.
407. Referring to Tuberculosis, Dr. TANGYE says :—" By an arrangement with the County Medical Officer of Health I have supplied him every week with lists of new cases of Phthisis notified, and the County Health Visitor has visited and given advice where such appeared necessary. Through this I have from time to time received valuable information as to defective conditions discovered in the patients' homes, and steps have been taken to remedy them."
408. Appended is a Report by the Sanitary Inspector on work done in his department during the year.

VITAL STATISTICS.

Population.	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infant Mortality per 1,000 Births
11,910.	22·3	14·9	1·08	94

RURAL DISTRICTS.

ALCESTER.

409. Dr. BROWNE estimates the population to be the same as last year, namely, 11,868.
410. The Birth-rate is a trifle higher than in the preceding year, though still comparatively low for a District in which a good deal of manufacturing work is carried on.
411. The Death-rate has fallen considerably, and is only 9·85, compared with 13·06 in the previous year.
412. Zymotic Disease has given but little trouble. Six deaths have been reported, giving a Zymotic Death-rate of 0·5 per 1,000.
413. The rate of Infant Mortality is also satisfactory, namely, 75·8 per 1,000 registered births. Thirteen of the 17 infants who died, were under one month old.
414. Thirty-four cases of Infectious Disease were notified under the Act. This is but little more than one half of the number of the previous year; 29 of these were Scarlet Fever, 2 Diphtheria, and 3 Erysipelas. In addition, there have been 22 cases of Pulmonary Tuberculosis and 3 of other forms of Tuberculosis notified.
415. Of the 29 cases of Scarlet Fever, not one proved fatal, and all were removed to the Isolation Hospital.
416. Only 2 cases of Diphtheria occurred, and Dr. BROWNE states that 20 examinations of material from the throats of suspected cases were made at the Pathological Laboratory during the year.
417. No case of Typhoid Fever was reported.
418. As regards Non-notifiable Diseases, Measles is reported to have been prevalent in the District in several localities, and to have caused three deaths.
419. Whooping Cough was the cause of one death.
420. Referring to Pulmonary Tuberculosis, Dr. BROWNE says:—"Twenty-two cases of Pulmonary Tuberculosis and three of other forms of Tuberculosis were notified during the year. These cases have been visited and kept under observation by the County Health Visitor. I have also visited several of them, and reported to you on their accommodation and general condition. The localities of the cases will be seen by reference to Table 11a. Eight of these cases have been sent to Sanatoria for treatment, by you and by the Warwickshire Insurance Committee, and shelters have been provided for the treatment of the cases at home where necessary. One advanced case which could not be properly treated at home was sent to the Workhouse Infirmary and died there. The usual disinfection and cleansing has been carried out."
421. At the Isolation Hospital there was no fatal case during the year.
422. As regards Inspection of the District, Dr. BROWNE reports that he has made Inspections of the principal parts of the District, alone and in company with the Council's Inspector.
423. Referring to Water Supply, he says:—"There have been no changes in the water supply of the District during the year. The Alcester Water Company has given a good supply. The East Worcestershire Company's supply to Crubbs Cross and Studley continues to be satisfactory. Thirteen samples of water have been submitted for analysis during the year, and nine have been condemned as unfit for use."
- Referring to Sewers and Drainage, he says:—"The sewers in Alcester have been well flushed and kept in good order, and the outfall works have received regular attention. The samples of effluent taken by the County Medical Officer have been far from satisfactory, and complaints have been made to you on the subject in consequence. Matters have been improved somewhat by a thorough cleansing of the filters, which was not completed by the end of the year. It is probable that improvements will have to be made in the system of filtration, for which purpose the service of an expert engineer will be required. The ground for the disposal of the Wilmcote sewage has not received the necessary attention, and a change of occupier has been decided upon."
424. He reports, too, that Scavenging at Alcester, Studley, Bidford and Ipsley, has on the whole been done in a satisfactory manner, but that arrangements have been made whereby the removal will be carried out at more frequent intervals.

425. Twenty-one new houses have been erected in the District during the year, and two at Studley partly rebuilt.
426. Six formal notices have been served for over-crowding, and the nuisances were abated. He says that owing to the large number of houses with only two bedrooms, there are necessarily a number of cases of over-crowding which are not dealt with, as there are so few larger houses available.
427. One case of food unfit for consumption was dealt with, but as there was not sufficient evidence that exposure for sale was intended, proceedings were not taken.
428. As regards work done under the Housing Act, he reports :—"Considerable improvement has been made in the dwellings that have been reported on. The work comprises re-roofing and repairs to roofs, new stairs, rain-water spouting and pipes, new drains, concrete round houses, and general repairs. There are a number of houses with low living rooms and only two bedrooms, quite unfit for families, so naturally many of the houses are overcrowded. This has been remedied in a few instances by a tenant taking two houses. It is difficult to persuade property owners to convert two houses into one, and where this is done it does not provide a larger living room."
- "A request was made to you by the Aleester Parish Council to build some new houses of a better style, and you promised to take the necessary steps to do this if it was found that after a short time sufficient houses were not being erected by private enterprise."
429. As regards other matters, he reports that Bakehouses, Lodging Houses, Slaughter Houses, and Factories and Workshops, have all been duly visited, and dealt with where necessary, during the year.

VITAL STATISTICS.

Population.	Birth-rate.	Death-rate.	Zymotic Death-rate	Infant Mortality per 1,000 Births.
11,868	18.87	9.85	0.5	75

ATHERSTONE.

430. Dr. HERRING estimates the population at 20,000, an increase of 460 on the estimate of the previous year.
431. The Birth-rate is 30.5, an increase of 0.96 over the previous year.
432. The death-rate of 12.1 was nearly 2.0 per 1,000 lower than in the previous year.
433. Referring to causes of death, Dr. HERRING says :—"As in former years, so in 1913, the most fatal of all the scheduled diseases was heart disease which is responsible for 36 deaths, chiefly occurring in persons over 60 years of age. The wear and tear of life tells a tale after people attain their 60th year, and as the tendency of the age is to work at high pressure, the mortality from heart disease and heart failure is not likely to diminish. The next most formidable cause, or causes, of death were those grouped under the heading of Congenital Debility, Premature Birth, Marasmus, etc., these claimed their victims from the other extreme of age, all being under one year old. The details of these deaths, with actual causes will be found in Table IV., which shews that 60 children died during their first year of life. Tuberculous disease of either lungs, brain, bowels or joints is responsible for 23 deaths, an increase of 4 over 1912, possibly the notification of Tuberculosis which is now compulsory may have revealed cases which were previously overlooked, or wrongly classified, but as *yet* we have not seen any falling off in this class of disease, notwithstanding all the efforts that are being made to that end. The time is short since the crusade began in earnest, possibly future years may shew better results and encourage us to persevere in our efforts against one of the most insidious, and pitiful diseases ever known. Cancer claimed 17 victims, all over 50 years of age. Respiratory disease was not so much in evidence last year, probably due to the fine summer and open genial autumn. No fewer than 15 persons exceeded 80 years of age, and 2 of these had even passed their 90th year."
434. As regards Infant Mortality, there is still further improvement, the figure being 98, compared with 103 in the previous year. Measles caused 2 deaths, and Diarrhoea and Enteritis 16; but with these exceptions, there was no Infantile death due to Zymotic disease.

435. Referring to the Notification of Births Act, Dr. HERRING says:—"The 'Notification of Births Act,' which came into force in this District in Sept., 1912, has doubtless done good, as it has ensured visits from a Lady Health Inspector, during the earlier and more critical days of an infant's life. It is perhaps too soon to expect any very marked results, but perseverance on these lines must eventually be of great benefit. I would, however, like to draw attention to the occasional neglect of Notification; 610 births were registered last year, but only 575 were notified. Stamped, printed and addressed postcards are provided free of cost, so that the labour of notifying is reduced to a minimum. Besides being a legal obligation, the desirability of helping to save infant life ought to be sufficient to ensure prompt and constant attention to what is after all not a very onerous duty."
436. As regards Zymotic Disease, though there was not a single case of Smallpox, Dr. HERRING has something to say on the subject of Vaccination, as will be seen by the following extract:—"In my report for 1912, I called attention to the serious and ever-growing neglect of Vaccination, and shewed that of the births registered 49½ per cent. were exempt under the Conscientious Objection Clause, and only 36·48 per cent. were successfully vaccinated. I am sorry to say matters instead of improving seem to be gradually and steadily becoming worse. Exemptions equal 53 per cent., and successful Vaccinations 29·33 per cent. It is surely time something were done to put the administration of the Vaccination Laws on a more satisfactory footing. It were better to repeal the Act and make the operation optional, rather than allow the enactments to be ridiculed and neglected, but if a simple operation is of proved value as a preventor, or modifier, of a loathsome disease, surely then the adoption of firmer measures are needed both in the interests of the children themselves, and for the safety of the general public. Meanwhile I may state that 116 cases of Smallpox were notified in England and Wales during 1913."
437. As regards Zymotic Disease the Report is extremely favourable. There were only 10 deaths from these diseases, of which 7 were from Diarrhoea, 2 from Measles, and 1 from Diphtheria. The Zymotic rate of 0·5, in contrast with 1·78 for 1912.
438. As regards Notification, 94 cases were reported, as follows:—Scarlet Fever, 82; Diphtheria, 8; and Erysipelas, 4. In August a localized outbreak of Scarlet Fever occurred at Birchmoor, which involved 10 children. In six parishes of the Union no infectious disease was reported.
439. It is extremely satisfactory to find that there was not a single case of Typhoid Fever during the year.
440. Dr. HERRING states that 417 cases of non-notifiable diseases were known to have occurred, information being conveyed to him by the Head Teachers of the various Schools.
441. Referring to isolation of Fever cases, he says that 49 were admitted to Hospital, chiefly in the latter part of the year. The average stay of each patient was 32·04 days. Not a single death occurred in the Hospital, although several cases were very severe.
442. He reports that the buildings and all appurtenances of the Infectious Hospital are in very good order and are well maintained.
443. He further says:—"Owing to pressure of cases in December last it became necessary to furnish one half of Ward A, in addition to Ward B, which has been in use since October, 1911. We have now 18 beds, but as most of the patients are children, we have substituted cots for full-sized beds and are therefore capable of taking 24 if required. The extra accommodation will enable me very shortly, I hope, to close Ward B, to allow of its being thoroughly cleaned, disinfected and painted, etc., which is urgently needed after 2½ years use, during which time it has been used for 149 patients, many of them very serious cases, so that the building and atmosphere must be saturated with fever germs, which are apt to produce continuous sore throat, or even fever relapses, and in general retard convalescence."
444. He records that since February all cases of Tuberculosis, affecting any part, are required to be notified to the Medical Officer of Health.
445. Referring to Notification, he says:—"I am rather doubtful as to the completeness of the notifications, for out of a population of 20,000 I have only received 45 reports during the 12 months. A Tuberculous sick rate of only 0·225 per cent. seems scarcely to agree with one's experience of the daily life in the district. I can quite understand that the patients do not care to be classified and reported as *Consumptives*, for it acts as a barrier both in obtaining employment and also in social intercourse, but if the steps

necessary to reduce, and we hope, finally eradicate the disease are to be effectual, it is *most* important that no time should be lost in getting the patient under proper treatment, and in removing him from contact with susceptible persons who might be infected by him. I would like to take this opportunity of reminding medical men that their Notifications are always 'Private,' and treated confidentially, and to ask them to assist in the good work of stamping out Tuberculosis in all its protean forms."

446. Referring to the after care of patients when discharged from Sanatoria, he says :—" On returning home much benefitted by the change of air, good food, and healthy surroundings, the patient finds himself back in the undesirable home surroundings, and vitiated atmosphere which probably produced the disease and from which the Sanatorium was a temporary escape. The patients it is true return bearing a certificate recommending them for domiciliary treatment, i.e., all the Sanatorium methods except the good air and hygienic surroundings, which are impossible in the majority of their home dwellings. The Local Committee are very helpful in the way of allowing milk, cod liver oil, medical attendance, and any special appliance for the patient's comforts, but with all these the removal from the wholesome air of the Sanatorium and return to the unhealthy surroundings of their home life soon neutralizes any benefit they may have derived from their treatment. It is, I am quite aware a lengthy process, but I am convinced that the speedy and plentiful provision of healthy homes will do more to cure, and prevent, consumption than any number of Sanatoria. We are as I have frequently said beginning at the wrong end—curing or trying to, instead of preventing."
447. Referring to Water Supply, he says :—" The Water Supply, or rather the lack of it, has been the subject of many trenchant criticisms and complaints to your Council during the year. On examination in many cases the fault was attributed to negligence and extravagance in the use of the water, in others to the pressure being maintained during the night and a consequent leakage; whilst in others engineering difficulties were suggested, the supply pipes having an insufficient fall to ensure a forcible flow. Giving all these reasons due weight they do not account for the total lack of supply in some cases and its intermittent character in others. One is therefore forced to the conclusion that the inadequate and uncertain flow is due to a real deficiency of water in the wells, and that that is partially caused by the constantly increasing demand, and the low average of rainfall over the last three years. If this is so, it seems prudent to push on as promptly as possible with the new supply from Warton, which promises to be abundant and is only waiting for distribution."
448. He further states that with the exception of Ansley Village which is still dependent on shallow wells, every parish in the District has a more or less efficient supply of good water. He further states that the Warton New Sinking is now an accomplished fact, the boring having reached a depth of 300 feet, at which level an abundance of splendid water has been found.
449. He reports on the Sewage Disposal of Atherstone, Polesworth, Hartshill and Grendon Common, and explains that the sewage of Hartshill is treated at Nuneaton, which seems to be quite a satisfactory arrangement.
450. Referring to Public Scavenging, he says :—" Up to the present time we only have this work carried out in the parishes of Atherstone, Hartshill and Polesworth. Last year in presenting an exhaustive report on the sanitary condition of Ansley parish, I recommended that scavenging should be undertaken by a contractor, so as to ensure a thorough removal of all refuse, etc. No move has been made in the matter as yet, but I am told that several areas, especially in the Ansley Common district, are to come into the builder's hands, so possibly, when this is accomplished, we may have an extension of sewerage as I have suggested, and also a complete scheme of public scavenging."
451. He speaks satisfactorily of the work done by Mr. Beck, the Sanitary Inspector, particularly the special work which has been undertaken to improve housing conditions.
452. He deals again, as he has done the last two years, very fully with the Housing and Town Planning Act, 1909, in relation to the housing question at Atherstone. He says :—" After a lapse of two years some results might be expected, as a consequence of my 1911 report, in which attention was called to the unsanitary condition of the yards of the town. The recommendations of the report were twofold—(a) to supply as promptly as possible a series of new houses suitable for working class tenants so as to reduce the congestion in the yards, and (b) to improve as far as possible those properties which although dilapidated and in unwholesome conditions were perhaps not bad enough to be closed.

"Taking section (a) first. It will be remembered the Council took the matter up very promptly and very soon were in negotiation for one or two sites. Negotiations were not altogether successful, but a piece of land was secured in Stanley Road on which 10 cottages have been erected. The houses are completed, and are occupied by tenants who seem very pleased with their homes, and contrasting them with the cramped and stuffy yards from which many of them came, their satisfaction is quite intelligent.

"I am indebted to Mr. Coleby's article in the 'Surveyor and Municipal Engineer' for a technical description of the new cottages, and also a balance sheet showing the total cost of erection, and the expected revenue from rents, from which it would appear that the fears that the property would be an expense and a burden to the ratepayers were not well founded. The article reads as follows :—

"Owing to the congestion which exists in the courts and yards of Atherstone, some of which have a density of population of over 500 persons per acre, a housing scheme has become imperative, and as an instalment the Atherstone Rural District Council have just completed ten houses, particulars of which are given below :—

"The land for these ten houses cost 3s. per square yard, or at the rate of £726 per acre, but as it abuts on a new road, recently made and sewered by the vendors, the price of the land really includes the cost of street works. The site has rather a big fall from front to back, necessitating deep excavations for the footings of the walls, and for this reason was not an economical site for building purposes.

"As the frontage was restricted the houses had to be built in a continuous row, broken only by a covered entry in the middle. There is, however, ample space in the rear for gardens, and the houses number just over twenty-two to the acre. The planning calls for no particular remark, except that an effort has been made to include under the main roof all the domestic offices except the water closet. The houses are of the five-room type, each containing a front living, kitchen with range, a scullery at the back containing sink, copper, and a bath with hinged wooden cover, and three bedrooms.

"Water is laid on from the town mains to the sinks and w.c.'s, and large rain water cisterns, having a draw-off tap over each sink, are provided.

"The walls are built with local pressed bricks, faced in front with Haunchwood reds up to the string course, the part above this being rendered in cement, and dashed with white spa chippings. The walls internally have been plastered, except those in the scullery and offices which have been limewashed, but no papering or distempering has been done.

"The actual figures are as under :—

							£	s.	d.
Builder's contract price	...	...	...	...	...	...	1,395	0	0
Additional work	...	...	...	...	...	...	8	12	7
Firegrates	...	...	...	...	...	...	33	10	6
Water services	...	...	...	...	...	...	16	4	0
							<hr/>		
							£1,453	7	1
Fencing	...	...	...	...	...	...	36	8	0
							<hr/>		
							£1,489	15	1
Cost per house ...							£148 19s. 6d.		

"This works out at 3·945d. per cubic foot.

"The houses are let at a rental of 5s. per week each, and from the balance sheet given below it will be seen that, after allowing 7½ per cent. for empties and losses, there will be only a small margin of £7 5s. 6d. per annum for repairs."

453. Further dealing with the question of housing, Dr. HERRING states :—"With the provision of these ten cottages the efforts of the Housing Act revival may be said to end. True there are negotiations going on towards the acquisition of more land, but it is a slow process, and much resembles the military exercise known as "marking time," in which there is considerable noise and apparent activity, but no actual progress. There are, of course, difficulties in these conferences, and patience is necessary to meet and overcome them. Let us hope that a suitable plot or plots of land may eventually be acquired and a goodly number of decent houses erected. Once the people have tasted the comforts of clean and wholesome houses there will be some difficulty (if even it were desired), to induce them to occupy slum dwellings again."

"So far the efforts of your Council have been directed towards the acquisition of sites, and the erection of new cottages. There is, however, another method by which the health of the town could be considerably increased, and possibly more quickly than by building. I mean the purchase and removal of old property which is at present dilapidated and unwholesome. For example, in my 1911 report, I mentioned that in the main street of the town, almost three-quarters of a mile long, there was no cross street to give free ventilation. Would it not be possible to select say two of the worst yards, and by compensating the owners, take down the whole of the old property, and so make an open thoroughfare, from Long Street through into Station Street? The removal of these slum dwellings would be an enormous improvement to the appearance of the town, a means of ventilating one of its densest areas, besides giving facilities for the passage of traffic. It would be an investment of capital which would not be altogether unremunerative for the new street would provide sites for business premises, and would presumably recoup a considerable proportion of the outlay.

"This, however, is a matter that should be shown as a well-considered *Town Improvement Scheme*, submitted for the approval of the inspectors and architects of the L.G. Board, who would then assist in financing it. The correspondence which has appeared in the public press as having passed between the president of the Department and the chairman of the Somerset County Council quite warrants the assumption, whilst the reported proceedings in the House of Commons a few nights ago confirms the idea. It is at any rate worth a trial, but any effort in that direction would need to be both unanimous and enthusiastic.

"The criticism may possibly be:—'If you dislodge these tenants where can they be housed? better wait until we have some better houses built.' A plausible argument but not unanswerable. There is no reason why the two projects should not go on simultaneously, and I am certain that once the Atherstone people saw the immense improvement and benefit arising from the demolition of even a couple of 'yards,' they would be eager to see the good work extended."

454. As regards the dealing with defects in property, Dr. HERRING says:—"A good deal has been done during 1913 in the way of remedying defaults and insanitary conditions, but one is constantly met with this cry from the property owners:—'Why cause us to spend so much on old property, which, in a year or two, you will condemn altogether and close.' A very fair argument, but there seems no immediate prospect of even the worst of these premises being closed, chiefly on account of the scarcity of dwellings into which to transfer the dislodged tenants—still, even as a temporary arrangement, the places must be made fairly habitable and that is all we are asking for at present."

"Mr. Beck's detailed Summary gives particulars of the various properties that have been dealt with. Four houses have been absolutely closed, as being unfit for habitation; still it is competent to the owners, to *thoroughly* repair and renovate them so as to make them again habitable. Whether that would be financially worth while is for them to determine."

In a postscript to his Report, Dr. HERRING says:—"Whilst this report was being printed the Rural District Council decided to provide Public Scavenging in the parishes of Ansley, Baddesley and Grendon. It will be a boon to the districts named, and a distinct factor in the improvement of the public health."

455. The Report concludes with one from the Sanitary Inspector, dealing with the various matters of his Department, such as Sanitary Work and Supervision, Public Scavenging, Dairies, Cowsheds and Milkshops, Factories and Workshops, Infectious Diseases, Lodging Houses, Slaughter Houses, and Canal Boats. He further states that as regards disinfection, 89 houses have been disinfected after cases of Scarlet Fever, and 13 houses after cases of Phthisis, while 93 lots of bedding and clothing have been disinfected in the Steam Disinfector.

VITAL STATISTICS.

Population.	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infant Mortality per 1,000 Births.
20,000	30.5	12.1	0.5	98

BRAILES.

- 456 Dr. FINDLAY estimates the population as 5,993.
457. There were 122 Births recorded during the year, giving a Birth-rate of 20.3 per 1,000.
458. The Death-rate recorded was 11.2 per 1,000, the lowest during the last five years. It is interesting to note that of these deaths 10 per cent. were of children under 5 years old, and 62 per cent. were of persons over 65 years of age.

459. There was an Infant Mortality of 49 per 1,000 births registered, six deaths occurring in children under a year old.
460. Two deaths occurred from Zymotic disease—one from Whooping Cough and one from Measles—giving a Zymotic Death-rate of 0·3.
461. There were two cases of Diphtheria notified during the year, one only being confirmed bacteriologically.
462. Five cases of Erysipelas were notified during the year.
463. SCARLET FEVER.—There were 15 cases notified, seven being in one family, and four in another.
464. There has been no case of Enteric Fever notified in the District for four years
465. Whooping Cough was prevalent during the year at Little Compton, Cherington, Birmingham, Great Wolford and Little Wolford.
466. Two cases of Ophthalmia Neonatorum were notified, the eyesight in both instances being saved.
467. TUBERCULOSIS.—Five cases have been notified—four of the lungs and one of the glands.

Referring to the treatment of Tuberculosis, Dr. FINDLAY says :—“ Probably domiciliary treatment would be better in a wide district like this, where the population is scattered and the number of cases very few, than by establishing dispensaries for the treatment of milder cases.”

468. The Notification of Births Act has been adopted and came into force on July 23rd, 1912.
469. Referring to Infant Mortality, Dr. FINDLAY says :—“ A considerable proportion of the Infant Mortality is due to children being born prematurely. This, in many cases, arises from some ill health on the part of the mother, and I think it would be a good thing if the County Council could recognise the different voluntary Nursing Associations in the District, and grant them some financial assistance. The Association would then be in a position to send their nurses to visit mothers who were making arrangements for attendance during confinements. These visits during the latter period of pregnancy would, I am sure, be useful, because of the advice given by nurses to prospective mothers with regard to the general care of their health. At present these nurses rarely see their patients until the actual time of confinement, when it is too late to try to prevent premature delivery.”
470. The Report states, with reference to drainage, that there are in the District about 125 water closets, 25 hand-flushed closets, 800 privy vaults and 100 midden closets.
471. Referring to Water Supply at Ilmington, Dr. FINDLAY says :—“ The upper part of the village is supplied under a high pressure system; while the lower portion of the village is supplied by a low pressure system, the water being conveyed in earthenware pipes to tanks in several parts of the village. The water is drawn from these tanks. The tanks have been cleaned out this year, but I think it would be a great improvement if the lower part of the village could also be put on the high-pressure system.”
472. All the Cowsheds and Dairies in the District have been inspected and are reported to be fairly well kept.
473. Of the 17 Bakehouses inspected, two had to be served with formal notices in respect of limewashing.
474. Under the Housing and Town Planning Act 340 houses have been inspected during the year, and four were found unfit for human habitation. Three Closing Orders have been made and in one case the house has been closed without the necessity of a Closing Order being made.
475. At Long Compton more cottages are required. Referring further to this matter, Dr. FINDLAY says :—“ A considerable quantity of the land in this parish is owned by Eton College, and I am informed that there is only one cottage on their estate suitable for an agricultural labourer. This matter has been considered by the Council, and the Clerk has been in communication with the College Authorities. One house belonging to the College has been repaired, but no definite promise to erect further cottages has been obtained by the Council.”

476. Thirteen cases were admitted to the Isolation Hospital during the year, all suffering from Scarlet Fever. There were no deaths.

VITAL STATISTICS.

Population.	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infant Mortality per 1,000 Births.
5,993	20·3	11·2	0·3	49

COVENTRY.

477. Dr. ILIFFE reports the Birth-rate as 31·7 per 1,000, and the Death-rate 6·9 per 1,000.
478. He states that 100 new houses have been erected during last year.
479. Water, Sewage Disposal and Light are said to be in every way efficient.
480. There is no overcrowding.
481. Four notifications of Scarlet Fever were received, and two of Diphtheria; of the latter one case proved fatal, a child of 4 years of age.
482. Under the Housing and Town Planning Act, 356 houses have been inspected. No representations were made with a view to the making of Closing Orders.
483. The Factories in the District have been inspected frequently.
484. Appended is a report of the Inspector of Nuisances, Mr. E. A. Evans.
485. He states that it has been unnecessary to serve a formal notice in the case of any nuisance which has existed in the District.
486. The water from the well at Whiteley was found unfit for consumption, and the water from the town supply was immediately laid on by the owner.
487. With reference to Dairies and Cowsheds, he says:—"I must congratulate the farmers and Dairymen in the District for the great care they have bestowed upon the Dairies and cowsheds. There has not been a single instance where the owners of cowsheds have not whitewashed and cleansed twice during the year."

VITAL STATISTICS.

Population.	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infant Mortality per 1,000 Births.
1,730	31·7	6·9	1·15	109

FARNBOROUGH.

488. Dr. JOHNS estimates the population to be the same as at the Census of 1911, namely, 1,482.
489. The Birth-rate, though higher than last year, is still low, namely 16·18. One of the births was illegitimate.
490. Dr. JOHNS notes that while 24 births were registered, only 12 were notified under the Act which came into operation early in the year.
491. The Death-rate, strange to say, is exactly the same as in 1912, and was very low, namely 8·09.
492. Only one Infantile death occurred during the year and this was due to premature birth.
493. Of the 12 net deaths, 8 occurred in persons aged 65 and upwards.
494. Dr. JOHNS reports that with the exception of one case of Erysipelas, no cases under the Infectious Diseases Notification Act were reported during the year.
495. Two cases of Tuberculosis were notified.

496. Referring to House Accommodation, he says :—"Undoubtedly a few more houses would be useful in the villages, but how many it is very hard to say, but there appears to be keen competition to obtain any that have become vacant or in the case of a house that has been closed and done up throughout and re-opened. It is becoming somewhat easier to have the necessary repairs done to those that need them."
497. He shows that 56 houses were inspected under Section 17 of the Housing and Town Planning Act, 1909, during the year, and that 5 were found to be unfit for habitation. All these five were closed voluntarily. In 25 other houses defects were remedied without the making of Closing Orders.
498. As regards Water Supply, he says :—"In two of the villages the water is brought from a distance, in the other four it is obtained from wells. Two wells were found to be in an unsatisfactory condition, one at Avon Dassett and one at Farnborough. Samples were taken and analysed, that from Avon Dassett was found to be unsatisfactory and is being dealt with; that from Farnborough was found to be quite unfit for human consumption."
499. Dr. JOHNS reports that there are no Offensive Trades in the District, that the Elementary Schools were inspected, and that the general Sanitary condition of the District is satisfactory.

VITAL STATISTICS.

Population.	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infant Mortality per 1,000 Births.
1,482	16·18	8·19	Nil.	41 |

FOLESHILL.

500. Dr. JOHN ORTON estimates the population to the middle of 1913 to be 25,088.
501. There were 872 Births, giving a Birth-rate of 34·1 per 1,000.
502. The Death-rate is 13·0, compared with 12·9 for the previous year.
503. There were 99 deaths of children under 1 year of age, giving an Infantile Mortality of 113·5 per 1,000 Births.
- The deaths were from the following causes :—Premature Birth, 36 ; Pneumonia, 5 ; Whooping Cough, 7 ; Epidemic Enteritis and Diarrhoea, 14 ; Bronchitis, 9 ; Convulsions, 8.
- Dr. ORTON, in regretting this high Infantile Mortality, says :—"The heading 'Premature Births,' which is a very wide one, comprising congenital defects, weakness at birth, wasting from birth, etc., is the one which seems most deplorable, and the number, 36, proves that all the advice and attention which can be given to mothers at the birth of a child is essential for the lowering of this mortality. To be of use, such advice must be prompt."
504. There were 47 deaths from Zymotic diseases, giving a death-rate of 1·8, the same figure as recorded last year.
505. There was a marked reduction in the notifications of Scarlet Fever, the figure being 99, as compared with 264 in 1912, and 240 in 1911.
- Two deaths were recorded, and 85 were removed to Hospital.
506. Measles was responsible for 8 deaths.
507. There were 21 deaths from Epidemic Diarrhoea and Zymotic Enteritis, most of these taking place late in the Autumn.
508. DIPHTHERIA.—33 cases were notified and 8 deaths registered. Referring to these, Dr. ORTON remarks :—"The disease was especially prevalent amongst children of school age in the Parish of Foleshill, the Districts of Bell Green, Windmill Lane, and Court House Green being especially affected. As it seemed most probable that contact in School was spreading the contagion, school closure was resorted to as will be mentioned later on. Several cases had to be removed to the Coventry and Warwickshire Hospital, for the operation of Tracheotomy ; and except for the fact that the serum provided and supplied by the Council to Medical Practitioners was freely used, the mortality would have been a very great one, infection being of severe and virulent character."
509. One case of Typhoid Fever was notified and proved fatal.

510. Four cases of Puerperal Fever were notified and three died.
511. Tuberculosis in all forms accounted for 20 deaths.
512. Three cases of Ophthalmia Neonatorum were notified and visited by the County Health Visitor.

513. Referring to Sewage Works, Dr. ORTON says :—"Consequent upon the large increase in the volume of sewage to be dealt with, two additional septie tanks have been built at the Foleshill Works, and additions are in contemplation at the Bedworth Works.

"The substitution of water closets for the old ashpits and privies in these two parishes cannot fail to be beneficial to the health of the Community. The disposal of the dry refuse from the ashbins is, however, becoming an important one, and during the year, the Council's Engineer was requested to obtain particulars of various Destructors. The Council, however, decided to postpone this question for the present.

"With regard to the drainage of the parish of Walsgrave-on-Sowe, a Sewerage Scheme has now been prepared for this District, and, when the North Warwickshire Water Company have completed the work of laying the water mains through this village, the Council intend to proceed with this work.

"The colliery property in Wyken Parish, which consists of two long rows of houses, extending along the northern side of the road leading to Walsgrave, has given no cause for complaint during the year. The improvements carried out in their small scheme would seem to have quite dealt with the difficulty of the flooding of the adjacent farm lands, mentioned in our last Annual Report."

514. Scavenging contracts are reported as having been properly carried out. Referring to this matter, Dr. ORTON says :—"At the same time we cannot but feel that the whole question of using land, whether it has to be made up or not, as a tipping ground for animal and vegetable refuse is insanitary in principle and practice, for reasons which are easily apparent. For instance, it is a favoured playing ground for children, who turn over all the refuse, and make fires of all combustible materials, and we have had several complaints under this heading. Again, it is a breeding ground for flies, a serious danger to health from their causation of epidemic Diarrhœa; and lastly, when the ground is ultimately made up, it is, sooner or later, converted into a building site which cannot fail to be harmful to the health of the people living upon it.

"I feel convinced that a Destructor is the only solution of the difficulty. One such would serve the needs of all our populous parishes, and I trust, at an early date, the Council will again consider such a scheme."

515. The Report states that there is still an urgent want, both in Foleshill and Bedworth, for lodging accommodation for the labouring classes.
516. The Water Supply is reported to be satisfactory.
517. Incorporated in the Report is an extract from the Report of the County Medical Officer of Health on Infant Visitation in the Foleshill District carried out by the County Health Visitor of that District.
518. Under the Housing and Town Planning Act 336 houses have been inspected, 15 Closing Orders have been made, and six houses have been closed voluntarily. With reference to this, Dr. ORTON states :—"The Housing Committee appointed by your Council have surveyed properties in Exhall, Foleshill and Bedworth, accompanied by your Inspector and myself, and this system of survey seems, in every way, desirable, both in the interests of the owners and the Council. Members of the Committee have taken a great interest in the work, and it strengthens the hands of the officers to know that the Council are fully cognisant of the housing conditions which prevail."
519. The Report also deals with Slaughter Houses, Cowsheds and Dairies, and Offensive Trades.
520. Appended is an exhaustive Report by the Sanitary Inspector, Mr. J. W. Windass, on the work carried out in his Department.

521. With reference to overcrowding, he says :—" Altogether 80 cases of overcrowding have been brought to my notice during the year, which is a very high number. During the year, Mr. Courtney T. Clifton, one of the Local Board Inspectors, paid a visit to the District of three days duration, and visited practically every parish in the District, being accompanied on his visits, on several occasions by yourself, and practically all of them by myself. Mr. Clifton has now submitted his Report to the Council, who are considering the same on the lines suggested by him, the matter being now well in hand."

VITAL STATISTICS.

Population.	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infant Mortality per 1,000 Births.
25,088	34.1	13.0	1.8	113.5

MONKS KIRBY.

522. Dr. O'CONNOR estimates the population on the hypothesis of the inter-censal rate of increase or decrease, as 1,553.
523. He reports 24 Births and 14 Deaths, giving Birth and Death-rates respectively of 15.4 and 9.0 respectively.
524. The Zymotic Death-rate and the rate of Infant Mortality were both *nil*.
525. All the deaths save one, were in persons over 50 years of age, and in more than a third of these the age was over 80.
526. As regards causes of death, he says that four were due to Bronchitis, one to Pneumonia, and one to Cancer.
527. There were no deaths from Tubercular Diseases, nor was any notification made of any new case of Tuberculosis during the year.
528. The only cases of Infectious Diseases notified were Scarlet Fever, 3; Erysipelas, 1.
529. He records that a Thresh Disinfecter has been purchased for this District, in conjunction with the adjoining District of Lutterworth.
530. As regards the general Sanitation of the District, Dr. O'CONNOR says nothing except that "they are referred to in the appended Report of the Sanitary Inspector."
531. He deals very fully with the Housing of the Working Classes. It appears that 21 houses were inspected, of which 19 showed defects. In 18 of these, defects were remedied without recourse to Closing Orders. In one case a Closing Order was made.
532. He refers to the question of additional accommodation as follows :—" Another matter on which I must report under this heading is the desirability or otherwise of providing additional accommodation for the better housing of the working classes. As a Medical Officer of Health I am not concerned with conditions which deter the prudent investor from embarking on any such speculation. I only know that throughout most of the Rural Districts for which I am Health Officer the building trade, in so far as the construction of workmen's cottages is concerned, is at a standstill. The building record for the past year in the whole of your District is one solitary house in the Parish of Pailton. The truth is that the outlook for those who have the temerity to touch this class of investment is not considered encouraging. You therefore need not look to private enterprise for the provision within your District of such workmen's cottages as are admittedly desirable. The population is, however, very small, and not many such cottages are, in my opinion, needed. Indeed I think that a dozen would suffice for immediate necessities, viz., four at Monks Kirby, four at Pailton, and two each at Wibtoft and Willey. I take the view that at least that number should be provided."
- "It is here relevant to reiterate my plea for the systematic scavenging of night-soil and refuse in your larger villages. I have repeatedly directed attention to the important bearing which this has on the sanitation of workmen's cottages. At the risk of appearing importunate I would urge your emulation of what has just been done in the larger District of your Union, viz., the appointment of a Public Scavenger for villages with over forty inhabited houses. There are only three such villages in your District, and they could readily be grouped for this purpose."
533. Dealing with Dairies and Cowsheds, he says :—" Particulars of inspection under this heading are dealt with in an appended return, which is furnished by the Sanitary Inspector. In these inspections of dairies and cowsheds I am in the habit of accompanying one or other of the Sanitary Inspectors in the Combined Districts. My extensive clerical duties, however, preclude the possibility of my devoting to this, or, indeed, any branch of my work anything like the personal attention which it merits."

VITAL STATISTICS.

Population.	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infant Mortality per 1,000 Births.
1,553	15.4	9.0	Nil.	Nil.

NUNEATON.

534. Dr. WOOD estimates the population to have increased to 2,938, compared with 2,505 at the Census of 1911, this being due to considerable growth at both Arley and Astley.
535. The Birth-rate is extremely satisfactory compared with last year, being 27·5 as against 21·3.
536. The Death-rate has gone down almost to as great an extent, it being only 12·5 compared with 17·2 in 1912.
537. The only deaths from Zymotic Disease were :—1 from Measles, 1 from Scarlet Fever, and 3 from Diarrhœa and Enteritis.
538. I regret to notice that the Infant Mortality rate was extremely high, being 172 per 1,000 births. The chief cause of death seems to have been congenital defect, though 3 died of Bronchitis or Pneumonia, and 1 from Diarrhœa. Referring to these, Dr. WOOD says :—“There has been no ease of wilful neglect. The Lady Health Visitor has visited these cases and again reports satisfactorily on the whole, as regards general care and attention to infants. I am convinced that the work done by the Lady Health Visitor is the best method of reducing Infantile Mortality. Special attention has been paid to Arley, and to that fact I attribute the reduction in Mortality in that parish. The rate for Arley was 120 per 1,000 births.
539. As regards Notification of Infectious Disease, altogether 33 cases were notified, including 2 of Tuberculosis ; 11 cases of Scarlet Fever occurred at Arley, and 9 at Astley.
540. During the latter part of the year there were 8 cases of Diphtheria at Arley, but no fatality occurred. Two of the cases were discovered by the Assistant School Medical Officer. Dr. WOOD says :—“Some of the patients in this epidemic have been proved bacteriologically to be capable of conveying infection long after the convalescent period.”
541. Referring to work of a Sanitary nature, he records that a sewerage scheme for Arley has been approved by the Local Government Board, and is now being carried out.
542. The Council have undertaken the emptying of ashpits at Smorrell Lane, Astley, and Dr. WOOD thinks that something of the same kind should be done at Wolvey.
543. As regards Water, he states that the Council are dealing with the question of an adequate supply of Water for the increasing population of Arley. Arrangements have been made with the Arley Colliery Co., for a supply from that met with in sinking their shafts. It is to be pumped to a reservoir of 50,000 gallons capacity, to be constructed at Hill Top.
544. Referring to Housing, he says the conditions are the same as last year. There is still a demand for houses at Arley, and now that the sewerage scheme is being completed, this demand will be satisfied during the coming year. Plans for 49 houses were passed during the year. He says there is a demand for a few houses at Wolvey and that if many houses are built there, a sewerage scheme for the village would probably become a necessity.
545. Referring to Building Bye Laws, he states that these apply to Arley and Astley only. It is proposed to build a factory at Stretton Baskerville, and in consequence, Dr. WOOD again urges the necessity of adopting Bye-laws for the whole District. In this I concur.
546. He reports that 71 houses were inspected during the year, that 2 were found unfit for habitation, and that Closing Orders were made, and that in 11 others defects were remedied without the making of Closing Orders.
547. He reports that Dairies and Cowsheds are on the whole satisfactory.

VITAL STATISTICS.

Population.	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infant Mortality per 1,000 Births.
2,938	27·5	12·5	1·7	172

STRATFORD-ON-AVON.

548. The population, Dr. THOMSON estimates as 11,182.
549. The low Birth-rate of 18·6 is recorded.

550. The Death-rate, corrected, is 10·37.
551. The Infant Mortality is 57·4 per 1,000 Births.
552. Two deaths were registered from Measles, one from Scarlet Fever, and two from Diarrhœa and Enteritis.
553. SCARLET FEVER.—Thirty-eight cases were notified; 17 cases being in the village of Claverdon. Dr. THOMSON remarks :—"It is also noticeable that the type of Scarlet Fever sent to Hospital recently is of a more virulent character than usually met with."
554. DIPHTHERIA.—Six cases were notified and all recovered.
555. TUBERCULOSIS.—Thirteen cases were notified and six deaths occurred. Referring to benefits under the National Insurance Act, Dr. THOMSON says :—"In a widely spread Rural District, as is that of the Stratford Rural District, the provision of special dispensaries for special treatment is obviously impracticable on the lines adopted in towns, and the use of special methods is, pro tem, in the hands of local practitioners."
556. Under the Housing Acts, 16 houses were inspected during the year, and eight representations were made with a view to Closing Orders being made. No Closing Orders were made, but two were closed voluntarily.
557. Referring to the sanitation of Claverdon village, Dr. THOMSON says :—"The defective general drainage of Claverdon village, on which I have reported for several years, still remains an unsettled matter, and also there continues to be there an exceptional amount of sickness. While I do not assert that these two conditions are absolutely cause and effect, it is worth remarking that the parishes in this district with modern sewerage and good water supply seem to suffer the least from children's infectious diseases. The question of properly sewerage Claverdon will not drop until it is decided to take action."
558. All the public water supplies of the District are reported as satisfactory.

VITAL STATISTICS.

Population.	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infant Mortality per 1,000 Births.
11,182	18·6	10·37	0·3	57·4

TAMWORTH.

559. Dr. FAUSSET estimates the population of the Warwickshire portion of this District to have been 16,859 in the middle of the year.
560. He points out that "The chief industry of the District is mainly connected with extensive mining operations in the Warwickshire coal-field area. There are other industries, consisting of the manufacturing of terra-cotta, glazed and other brick-making, stone-quarrying, and the manufacture of sanitary pipes and other appliances. There are also large paper mills, an iron-foundry and a canal boat building yard."
561. The Birth-rate has further risen on last year and has now become the satisfactory one of 28·5. Eleven of the births were illegitimate, compared with 16 in the previous year.
562. The Death-rate was extremely satisfactory, being 10·2, and slightly lower than the preceding year.
563. As regards Infant Mortality, the rate was as low as 68 per 1,000, and is quite as low as can be expected in a district of this sort.
564. As regards Zymotic Disease, this rate was also satisfactory, being little more than half that of last year, and only 0·47.
565. It would appear that the Zymotic Death-rate and the rate of Infant Mortality, are the lowest recorded of late years.
566. Eight deaths only were registered during the year from Zymotic Disease, namely :—Scarlet Fever, 2; Diphtheria, 1; Enteric Fever, 1; Whooping Cough, 1; Diarrhœa, 3.
567. Only 5 deaths were registered from Pulmonary Tuberculosis, and only 8 cases were notified. Of other forms of Tuberculosis 10 cases were notified.

568. As regards Notification of Infectious Diseases, 71 cases were notified in all, a very small total, of which 18 were Diphtheria, 23 Scarlet Fever, 3 Typhoid Fever, and 8 Phthisis.
569. As regards deaths from Infectious Diseases it would appear that there was no mortality at all from Smallpox or Measles.
570. With reference to Sanitary improvements effected during the year, both in Amington and Stonedelf, Dr. FAUSSET reports that Sanitary improvements were effected both as regards abatement of overcrowding, and the supply of water to outlying farms. A new Cemetery was provided and laid out at School Lane.
571. In Bolehall and Glascote numbers of houses were inspected under the provisions of the Housing Acts, and considerable repairs were carried out as regards roofs, walls, floors, windows, etc., and also improvement in drainage at several houses. The water supply at Glascote Heath had to be supplemented by carting in consequence of an accident at the Water Works to one of the pumps.
572. At Whateley he reports that the sewage from Piccadilly and the Woodlands is now being dealt with at the newly constructed disposal works at Cliff, and so the objectionable nuisance which frequently arose from the filter and its tanks close to the road near the colliery has been abated, as has the nuisance from the sewage at the Woodlands, where the sewage lay in an open cess-pool with an overflow into a ditch.
573. In Newton Regis structural improvements to houses are reported as having been effected, as well as insanitary conditions removed, and overcrowding abated. Two old cottages built up with turf walls have been closed as unfit for human habitation, and demolished after notice.
574. At Wilnecote and Castle Liberty, four houses which were closed under the provisions of the Town Planning Act, were demolished.
575. As regards the Infectious Hospital, Dr. FAUSSET says :—
- “At a time when there were only a few cases in Hospital, and there seemed to be a possibility of closing the wards, a reduction was made in the Staff, and two of the nurses obtained situations elsewhere, and when a fresh influx of cases occurred, considerable difficulty was experienced in replacing them, there being an increased demand for nurses at the time. The difficulty was temporarily overcome, and a nurse obtained from a Nursing Home on somewhat reduced terms.
- “The question of increased sleeping accommodation at the administrative block for the nurses, has been brought before the notice of your visiting Committee, as it is at present inadequate, and adds somewhat to the difficulty of keeping the nurses. Some increase of accommodation appears to be advisable under the circumstances.
- “I have in previous reports drawn your attention to the need there is for a small temporary building to be used as an observation ward in which a doubtful case of illness could be isolated without incurring danger to himself or risk of further infection to the other patients in the wards.
- “The buildings are kept in a state of good repair, the whole of the exterior woodwork of the hospital premises has been painted with Blundells Spence & Co.’s petrifying liquid, nearly all the interior of the administrative block has been painted, and the walls discoloured. The laundry and mortuary have been re-painted, and the ceiling in the top block repaired and limewashed.
- “The drainage is now connected with the main sewerage system of the district, and the old dumbwell and cesspools have been abolished and filled in.”
576. He deals at length with the question of the Water Supply, and says:—“In the Warwickshire portion of the district, the populous parishes of Amington and Stonedelf, Bolehall and Glascote, Wilnecote and Castle Liberty are also supplied from the mains of the Tamworth and District Waterworks. Part of Shuttington, including Alvecote and the Hamlet of Dosthill, in the parish of Kingsbury, are supplied from the same source.
- “The village of Kingsbury and the hamlets of Bodymoor Heath, Cliff, Coton and Halloughton, are supplied by gravitation from the reservoir, situated near Kingsbury Wood, which is fed by the Dumble Springs arising in Kingsbury Wood.
- “Hurley, Hurley Common, Wood End, Edge Hill, Piccadilly and Whateley, are supplied by arrangement with the Dugdale Trustees from their reservoir at Bentley.

"At Middleton water is pumped into a reservoir by means of a windmill, and by gravitation supplies five farmhouses, the Vicarage, the School, and six cottages; and by the same means three farms and a house at Allen End get their supply. Another reservoir, on the Sutton Road, supplies a farm and a private dwelling-house in this vicinity.

"Seekington village has two reservoirs kept filled with good water, also by means of a windmill, the water gravitating to the houses and cottages.

"The supply for Newton Regis, Noman's Heath and Austrey is obtained in several instances from deep draw-wells, containing plenty of water, except in times of drought, and from the usual shallow wells and springs to be found in country places."

577. As regards new Sewers and Extensions, Dr. FAUSSET says:—"New sewer completed from the Cemetery along the Wigginton Road for a length of 450 yards. New sewer at Hopwas from the 'Red Lion' Inn, to cottages at Ball's Bridge laid, and the cottages connected thereto; also a short extension at Lunn Street, Glascote Heath."

578. As in previous Reports, he also deals with the very important matter of the prevention of floods, and says:—

"The question of how best to clear the river beds, and by the removal of various obstructions improve the flow of the water has received considerable attention from your Weirs Committee. By their direction your Surveyor made an inspection of the rivers Tame and Anker, and submitted a report showing to what a great extent their courses were obstructed by various scours, mud-banks, fallen trees, and overhanging branches, and by deposits from the rivers themselves, whether during their normal flow or during flood times, which have raised their beds, and by limiting their carrying capacity have increased their liability to overflow. The river Tame, in the vicinity of Hopwas Bridge, has become greatly obstructed, and the water-way narrowed by the formation of an enormous accumulation of solid deposits constantly increasing, which have formed large islands in mid-stream, thickly planted with willows.

"The necessity for clearing away these obstructions to the free-flow of the river is perfectly obvious, and has become an urgent one. Your authority by your share in the purchase of the Comberford Weir, lower down the river, part of which has been washed away during a flood, effected an improvement in this direction. The question, however, of the removal of the obstruction at Hopwas bridge and of the other obstructions generally, is one which it is felt can only be undertaken by an authority formed specially for this purpose, and provided with powers to enable this very necessary work to be carried out over a very large area."

579. He reports that the housing accommodation of the working classes is on the whole fairly satisfactory. The dwellings are not unduly crowded and most of them have sufficient space, with free circulation of air. Some of the workers—especially those with large families—have the greatest difficulty in finding houses with sufficient bedroom accommodation, and this naturally leads to overcrowding. In some of the populous parts of the district it is next to impossible to obtain a house as the demand is so great.

580. He gives a table showing the amount of inspection done under the Housing, Town Planning, etc., Act, 1909, in which it is shown that 85 houses were inspected, of which 28 were described as "in fair condition," 29 were made habitable, and 7 were closed. I cannot, however, help feeling that having regard to the size and importance of this District, that the work recorded under this head is hardly adequate.

581. The question of Bye-laws is still an open one, and Dr. FAUSSET says:

"With reference to the question of the adoption of a series of bye-laws for the district, at the suggestion of the Local Government Board a Conference took place at Whitehall, on February 10th, 1913, at which Mr. Ashwood, Mr. Alldritt, your Clerk, Surveyor and myself attended. As the result of considerable discussion it appeared that the intermediate series of the Board's model bye-laws for new streets and buildings was the most adaptable to the requirements of the district, subject to some slight modifications.

"Further correspondence has taken place between your Council and the Board with reference to the retention of clause 5 and clause 13, to the first of which your Council objected, and with a view to arriving at a better understanding with regard to the efficacy of these clauses, a further conference took place at Tamworth on December 4th, 1913, at which Mr. Kirthin, the Board's Architect, and Dr. Carnworth, Medical Inspector, attended, and subsequently made an inspection of the district.

"The adoption of the intermediate series with such modifications as may be determined upon, seems to offer facilities for bringing this question to a successful termination."

582. He reports that Slaughter Houses, Dairies, Cowsheds and Milk Shops were all visited and inspected as required by the various Orders.

583. He also records two cases under the Children's Act, 1908, in each of which a man and wife were charged with ill-treating a child. In the one case, the man was fined £2 and the mother £1, while in the other the man was discharged and the mother sentenced to one month's imprisonment with hard labour.
584. Dr. FAUSSET speaks very highly of the work accomplished by the County Council Health Visitor, and says :—" In the Warwickshire parishes of the district a most successful and important work has been carried out by Miss Houghton, the County Health Visitor, who is also School Nurse and who fills in connection with the Midwives Act, the duty of supervising and lecturing the Midwives, assisted by Miss Green. Numerous visits have been paid to the homes of children who appeared to be indifferently cared for, and others, and the importance of proper feeding, and care of infants and older children insisted upon, as well as cleanliness in the home, the necessity for efficient ventilation and other matters. Visits were also paid to the homes of consumptive patients, and other valuable assistance given relating to sanitary matters."
585. In a General Summary he states what he considers are the important questions which require careful attention during the present year, namely :—
- 1.—The continuation of the measures already undertaken with regard to the prevention of the pollution of the River Tame.
 - 2.—The carrying out of the remainder of the scheme for dealing with the weirs.
 - 3.—The administration of the powers of the Housing, Town Planning, etc., Act, 1909.
 - 4.—The administration of the Notification of Births Act, 1907.
 - 5.—The administration of the special and general powers of the Tuberculosis Notification Order, and Regulations.
586. Appended to the Report is the Annual Report of the Inspector of Nuisances, which deals with the work in his department, and the supervision he has exercised. He shows that there are 108 workshops on the register, and states that the 42 Factories are supplied with sufficient means of egress in case of fire. He deals at length with the Housing and Town Planning Act, 1909, and gives in tabular form the results of many of his Inspections, with the defects found, and finally deals with the Canal Boats Act, 1877-1884.

VITAL STATISTICS.

Population.	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infant Mortality per 1,000 Births.
16,859	28.5	10.2	0.47	68

RURAL DISTRICTS IN THE MID-WARWICKSHIRE COMBINED DISTRICT, INCLUDING MERIDEN, RUGBY, SOLIHULL, SOUTHAM AND WARWICK.

MERIDEN.

587. Dr. TANGYE estimates the population at the middle of the year to have been 15,680, an increase of 130 on the previous year.
588. The Birth-rate was 19.5 per 1,000, 0.7 lower than in the previous year, while the Death-rate was 13.0 per 1,000, 1.9 higher than in 1912. If, however, correction is made for age and sex distribution by the factor of the Registrar General, the figure becomes 11.4, and this really is the one which gives the best idea of the rate of mortality in the District.
589. The Zymotic Death-rate was 0.8, quite a satisfactory figure.
590. Thirty-seven deaths of infants were registered, compared with only 12 in the preceding year, so that the mortality rate was the high one of 121 per 1,000 births.
591. Ninety-eight cases of acute Infectious disease were notified during the year, compared with 60 in 1912. Of these 76 were due to Scarlet Fever, 8 to Diphtheria, 1 to Typhoid Fever, and 2 to Puerperal Fever. In addition to these among non-notifiable diseases, Measles was prevalent at Corley, Lea Marston, Castle Bromwich, Fillongley, and Maxstoke, in the first half of the year, and Schools were closed in consequence in several of the villages.
592. Four deaths were due to Measles and 2 to Whooping Cough. The latter disease was prevalent at Marston Green in June.
593. As regards Diphtheria, it is very satisfactory to be able to find that arrangements have been made for the free supply of Anti-Toxin for the poorer inhabitants, in two centres in the District.

594. The only case of Enteric Fever was known to be contracted in another District.

595. As regards Phthisis, Dr. TANGYE reports :—

“ Seventy-two new cases of Tuberculosis were notified during the year, 29 being of phthisis and 43 of other tuberculous disease.

“ It will be noted from Table II. that the chief incidence of tuberculosis was at Coleshill and Shustoke. This is accounted for by the presence of large numbers of poor children gathered from various towns at the Roman Catholic Homes at Coleshill, and also of a smaller number of imported children at the Industrial School, Shustoke. At the former Homes 32 of the children were notified as suffering from tuberculosis, and 3 at the latter.

“ These children do not of course strictly belong to the District, and their condition has undoubtedly been contracted elsewhere, but since these Institutions are neither sanatoria, poor law institutions, nor hospitals, under the Tuberculosis Regulations the cases must unfortunately be credited to this District. All these cases are under the care of the Medical Officers of the Homes and School, and the notifications have practically only a statistical value.

“ Thus the total number of new cases of tuberculosis in persons actually belonging to the District, excluding the cases at the Homes, was only 37, which compares satisfactorily with the incidence of the disease in other Rural Districts.

“ Eighteen deaths were registered as due to tuberculosis, of which 9 were of phthisis and 9 of other tuberculous diseases. Here again it is only fair to subtract the 7 deaths which occurred from tuberculosis at the Coleshill Homes, although this is not strictly correct according to the Registrar General's methods. The deaths from tuberculosis thus actually belonging to the District for the year were only 11.

“ Reduced as above the figures of tuberculosis in the District do not show any marked prevalence, especially when it is remembered that some of the cases have probably come into the District for treatment from elsewhere. With the improvement in housing conditions there is every hope that the disease will further decrease.

“ Disinfectants and sputum bottles are supplied free through the Sanitary Inspector for cases where they are desirable. After deaths from Phthisis and after removals of phthisical patients when the circumstances require it, disinfection is carried out by the Inspector and the bedding removed to the Isolation Hospital or to a disinfecting station at Birmingham for disinfection.

“ By an arrangement with the County Medical Officer of Health I have supplied him every week with lists of new cases of tuberculosis notified, and the County Health Visitor has visited and given advice where such appeared necessary. Through this arrangement I have from time to time received valuable information as to defective conditions discovered in the patients' homes, and steps have been taken to remedy these.”

596. Referring to Water Supply, Dr. TANGYE says a large part of the District is supplied with water through the mains of the Birmingham Water Department, and the North Warwickshire Water Company, whilst a smaller number of houses obtain their supply from the mains of the Coventry Corporation and Tamworth District Council. The rest of the District is supplied by the usual type of shallow wells, with the exception of a few houses in the parish of Packington, which are supplied by springs, and 33 houses in Fillongley which obtain a similar supply.

597. The question of a supply for the village of Bickenhill is still under consideration, and Dr. TANGYE says :—“ As has been previously mentioned every well in this village is polluted, and though no outbreak of disease has yet occurred in the village, the possibility is always present under such circumstances. It is therefore to be hoped that the Council will push forward a proper scheme at the earliest opportunity.”

598. Extensions of the mains have been carried out at Hampton-in-Arden and Castle Bromwich.

599. Dr. TANGYE further states :—“ The North Warwickshire Water Co.'s supply at Meriden was the subject of complaint on account of its tarry taste during the summer. On analysis, however, no really harmful condition was discovered, and after correspondence with the Surveyor the matter was remedied, it is to be hoped permanently. No other samples from public supplies were submitted for analysis during the year, but arrangements have now been made for such analyses every month from various points throughout the year.”

600. A table is provided by the Inspector, showing the work done in improving the water supplies, and proving how very active work in this direction has been during the year.

601. Referring to Drainage and Sewerage, a Report is given by the Surveyor which shows the condition of drainage and sewerage in all the constituent parishes, and also shows how the sewage in the various places is treated.
602. As regards Coleshill, the Report states that the Southern half of the town is dealt with by 4,600 yards of 9-in. sewers and two suitable tanks, the effluent being afterwards treated on 12 acres of land.
603. An exhaustive series of levels have been taken on which six or seven alternate schemes have been based and approximate estimates prepared.
604. Referring to this Report, Dr. TANGYE says :—
 “As might be expected from the diversity and number of the various outfalls, the constant supervision so necessary for their efficient working is difficult to ensure with the present limited staff.
 “The Sanitary Committee have devoted much time to the improvement of the sewerage of various villages, and have provided the Surveyor with expert assistance for the purpose of drawing up schemes. With the exception, however, of a small area near the Church at Hampton-in-Arden, none of the contemplated improvements have actually been put in hand.
 “The Fillongley Scheme, the sanction for the loan for which was obtained as a result of a Local Government Board Inquiry held on 23rd February, 1912, has since that date been completely re-cast to admit of gravitation instead of pumping, and the inclusion of a wider area than that contemplated under the original scheme. Whilst the improvements will add to the value of the scheme, a further delay has thus been entailed in the removal of pollution from the river Bourne, from which the City of Coventry obtains part of its supply after filtration at Shustoke. The completion of this work is urgently necessary on every ground.
 “A satisfactory scheme has been devised to deal with the sewage from the northern slope of Coleshill, the necessity for which has been regularly urged in my past Annual Reports. This also is a matter which should be pressed forward by the Council, not only for the sake of the river, which every year receives more pollution, but also for the sake of a populous area which badly needs the general installation of water carriage.
 “The villages most urgently requiring complete sewerage schemes, in my opinion, besides Coleshill and Fillongley, are Bickenhill and Marston Green. The present sewerage of these villages is highly unsatisfactory, and must be remedied, especially in view of the contemplated extension of the water main. The same remark applies to Old Station Road, Hampton-in-Arden.”
605. As regards scavenging, it appears that public scavenging is only carried out at Castle Bromwich, Water Orton, and Coleshill. He says that the scheme which was begun at Coleshill in August appears to be much appreciated by the numerous occupiers of houses with small back yards and gardens, and at Hampton-in-Arden and Allesley, similar schemes would be a great advantage.
606. As regards Housing, the Report shows that a still large amount of work was done under Section 17 of the Housing Act, 1909; 311 houses were inspected, 8 of which were found to be unfit for habitation. No Closing Orders were made, but in 149 cases dwelling houses which had defects were remedied without the making of Closing Orders. It appears that special attention has been given to the parish of Coleshill.
607. Referring to the general condition of the housing of the working classes in the District, Dr. TANGYE says :—“I can only repeat my remarks made in previous Annual Reports. In the parishes of the old Castle Bromwich Rural District, namely, Castle Bromwich, Water Orton, Curdworth, Minworth, and Wishaw, the standard of housing is very fair owing to the comparatively small number of houses, namely, 618 at the last census, which has admitted of regular inspection, and to the very complete systems of sewerage and water mains. The rest of the District presents more general defects in housing, although it is probably not below the standard of other Rural Districts in the County in this respect. The main defects found to exist were dirty interiors, damp and defective walls, defective roofs and floors, drainage, water supply, sinks, and sanitary accommodation, and insufficient ventilation.”
608. Dr. TANGYE refers to an important point on the subject of overcrowding, and says :—
 “Three cases were discovered where children occupied small ‘landing’ bedrooms, with no light or outside ventilation. Windows were possible and have been inserted willingly by the owners, on their attention being called to the matter, and some of the children moved to downstairs rooms or elsewhere.

"Six other cases were remedied in a similar way by utilising a downstairs parlour or lumber room.

"There is a very prevalent objection on the part of cottagers to using the parlour as a bedroom, but this appears in certain instances to be the best solution in the case of rapidly increasing families."

609. Referring to the Sanitary Administration of the District, Dr. TANGYE says:—"The staff arrangements have remained as described in my last Annual Report, but as already mentioned Mr. Negus has been provided with expert assistance for the purpose of drawing up various sewage schemes. A new assistant in place of the previous one has been appointed for the actual manual work in connection with sewers, drains, disinfection, etc.

"At the end of the year the Council decided to provide the Inspector with a clerk, who will no doubt relieve him of much routine work.

"The motor cycle provided during the previous year by the Council has proved indispensable in the work of the Sanitary Inspector."

610. Dr. TANGYE also calls attention to the importance of adopting various bye-laws, adoptive Acts, and sections of Acts, in different parts of the district, and regrets that no formal steps have been taken in the matter to do this.

He shows the extent to which the County Scheme has been used for the free Bacterial Examinations at the Birmingham University, and states that swabs from Diphtheria patients and 13 from Phthisis, as well as two samples of blood from Enteric Fever cases were submitted.

VITAL STATISTICS.

Population.	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infant Mortality per 1,000 Births.
15,399	19.5	13.0	0.8	121

RUGBY.

611. Dr. TANGYE estimates the population to have increased to 17,820.

612. The Birth-rate was even more satisfactory than in the previous year, namely 28.2, and is considerably higher than the average for the past five years.

613. The General net Death-rate was 14.0 per 1,000, but corrected by the sex and age factor of the Registrar general it becomes 12.8 per 1,000, on the whole a satisfactory figure.

614. The Zymotic Death-rate was 1.17, almost identical with the previous year.

615. The rate of Infant Mortality was 105 per 1,000 births, much in excess of the average of the previous five years, and as Dr. TANGYE says, is disappointing in face of the large amount of work directed against Infant mortality in the District. It must be borne in mind, however, that almost half the deaths were due to easily prevented congenital causes, of which premature birth was the greatest single factor.

616. One hundred and forty-nine cases of Infectious Disease, exclusive of Phthisis, were notified during the year, compared with 58 in 1912, and 133 in 1911. The increase was largely due to the two serious outbreaks of Diphtheria amounting to 56 cases. Dr. TANGYE presented a Special Report on this subject, which is as follows:—

"I have to report a serious outbreak of diphtheria at New Bilton, at present limited to one family.

"A boy, aged 6, of New Bilton, died suddenly on December 30th. No doctor was in attendance at the time, and the death was returned as uncertified, the cause being given as 'Heart Disease.'

"On February 6th another child, aged 3, who had been ill since December, died at the same house. This death was certified as due to 'Diphtheria one month, Cardiac failure,' but the case had never been notified as one of diphtheria.

"On February 7th another child of the same family, aged 10, was excluded from school by the School Medical Officer on account of certain suspicious throat symptoms.

"On February 12th I visited the house and took bacteriological specimens from all the children in the house. All these specimens have been reported by Birmingham University as showing the diphtheria organism.

"These children may not themselves develop diphtheria, but they are in my opinion dangerous to others.

"I would suggest that all three children be removed to Harborough Magna Hospital for thorough treatment in order to get rid of the infection which they are carrying.

"This course appears all the more advisable since the family are not living in their own house, and the father is an invalid."

617. The second outbreak occurred at Brandon, when Dr. TANGYE reported on it as follows :—

"A case of diphtheria was notified at Brandon on February 14th and removed to Harborough Magna Isolation Hospital on the 15th. This case, which terminated fatally on the 16th, was a child attending Brandon School.

"I visited on several occasions, and found several children attending school whose throats showed the diphtheria organism.

"These children were excluded in the usual way from school attendance, and also, upon my advice, a nurse has been engaged to treat these children at their homes and others who are still attending school, in order to stamp out the infection as completely as possible, under the supervision of the local doctor.

"No further case has up to the present occurred."

618. Referring to the village of Marton he reported as follows :—

"I beg to report upon the recent outbreak of diphtheria at Marton village.

"Altogether ten children have been notified as suffering from this disease. All attended Marton School, or were members of a family from which children attended the school, and all but two live in the village itself, these two living respectively at Sinclair's Barn and near Frankton.

"Eight families were affected, two cases being notified from each of the families.

"The first case was notified on the 5th instant and the last on the 15th, and in no instance was it possible in my opinion to secure adequate and safe isolation. I therefore authorised the removal of each of the patients to the Harborough Magna Isolation Hospital.

"I examined and took bacteriological specimens from a large number of children who had come into contact with the patients, but in no instance was found a single child who showed traces of infection, but was not actually suffering from the disease. In this respect the outbreak contrasted greatly with that at Brandon, where a large number of children were found to have the diphtheria infection besides the patient who was notified as a case.

"All the patients are progressing favourably, and I hope that the outbreak is now at an end.

"The school has been closed and thoroughly disinfected. The school drainage system has been found very imperfect, and the Managers' attention has been called thereto. It will not be possible to re-open the schools until the necessary work has been carried out.

"The village has been kept under constant inspection and observation by the Sanitary Inspector and myself, and we have received the greatest assistance from the local medical practitioner."

619. The last and most wide-spread epidemic during the year occurred at Dunchurch, and Dr. TANGYE reports on this as follows :—

"I beg to report on the outbreak of diphtheria at Dunchurch which I mentioned at the last Council Meeting as probably at its commencement. The first case was notified on 8th October, and the last on the 5th instant, since when no fresh cases appear to be developing. Altogether twenty-five cases have been notified at Dunchurch and Thurlaston, of which the majority have been amongst school-children attending the Dunchurch Schools, but five cases have been in adults. These twenty-five cases have occurred in twenty-one different families. One case has proved fatal, and some have been very severe, but the majority of the patients are now convalescent.

"In addition to the notified cases, a number of children have been found on bacteriological examination to have the diphtheria infection in throat or nose without themselves being ill.

“The following steps have been taken to deal with this epidemic :—

“Both schools have been closed and thoroughly disinfected. All articles at the school likely to retain infection which could not be properly disinfected have been burned with the permission of the Education Authority.

“Ten patients who could not be properly isolated at home have been removed to the Isolation Hospital, and the infected houses disinfected.

“As authorised at the last meeting of the Council I have obtained a trained fever nurse to treat at their homes all cases not removed to hospital, all other children in such homes, and all children who have been found to have the slightest infection. The nurse began work on 16th October. By constantly visiting in the village the nurse has been able to discover cases in their earliest stages which might not otherwise have been treated until too late.

“Dr. Powell has used the anti-toxin supplied by this Council in such cases as have required it, and has otherwise rendered valuable assistance.

“I have made free use of the arrangement for bacteriological examination at the expense of the County Council, and no child will be allowed to return to school when it opens who is now under the slightest suspicion until he is reported free from the infection of diphtheria by Birmingham University.

“I have investigated with the Sanitary Inspector a number of nuisances in the village, and although there is no reason to suppose that any one of these was the direct cause of the epidemic, it is not unlikely that some of them have pre-disposed to the spread of the disease when once the diphtheria infection had been introduced. The following have been found to be the source of nuisances :—

“The inefficient removal of night-soil and refuse from cottage property. Such removals are for the most part only made annually, and large accumulations were found close to wells in back yards. I would strongly advocate the adoption of a scavenging scheme for the village on the same lines as those in successful operation elsewhere in the District. Public scavenging would admit of the conversion of the present insanitary middens into pail-closets, and the provision of moveable ash-bins, both of which I consider essential to the health of the village.

“The present tip immediately opposite the cottages on Daventry Road has undoubtedly been used for the disposal of offensive material. Such use should be discontinued, and the present collection of garbage removed or buried.

“The open sewer on Daventry Road has been the subject of as many complaints as the tip already mentioned, and should be piped in for a distance from the village.

“The sewers of the village should be regularly flushed during dry weather, and the sewer at Gaol End, concerning which we continue to receive complaints, should have been properly ventilated as already decided by this Council.

“The sewage from the Lodge on Mr. Laneaster's estate, where the first recognised case of diphtheria occurred, has been improperly disposed of, and the drains of both Lodges should be connected with the sewer or some other adequate arrangement made.

“The drainage and water supply of the schools have been found to be unsatisfactory, and steps are to be taken to remedy these.

“As required by their Order, I have reported fully to the Local Government Board on the outbreak, and would add that the Isolation Hospital has been invaluable for the removal of such patients as could not possibly have been safely treated at home.”

620. As regards Scarlet Fever, the District was fairly free from this disease until October, when cases began to occur at Long Lawford. Twenty-two were altogether notified from this village, necessitating a long closure of the village schools. Dr. TANGYE says :—“This outbreak was complicated by the occurrence at the same time of numerous cases of ‘rose rash,’ and it is probable that some mild scarlet fever cases were regarded as this disease and consequently escaped precautionary measures and prolonged the outbreak.”

621. In the village of Willoughby 18 cases occurred.

622. Only four cases of Typhoid Fever were notified during the year, 3 at New Bilton and 1 at Newbold. In none of the cases was it possible to trace a definite source of infection.

623. As regards Non-Notifiable Infectious Disease, the epidemic of Measles which affected the District so severely towards the close of 1912, continued to some extent into 1913, the villages of Ryton, Marton, and Princethorpe being invaded during the first month of the year.

624. Dr. TANGYE says the School Teachers of the District carefully follow the rules laid down by the County Council with regard to exclusion of members of infected families from School.

625. As regards the prevalence and control over Tuberculosis, Dr. TANGYE says:—

“During the year forty-four new cases of tuberculosis have been notified, 35 being cases of Phthisis, and 9 of other tuberculous diseases. During the previous year 32 cases of phthisis were notified.

“Thirteen deaths were certified as due to phthisis, and 7 to other tuberculous diseases, comparing with 11 and 3 in 1912, and 16 and 5 in 1911.

“By an arrangement with the County Medical Officer of Health I have supplied him every week with lists of new cases of phthisis notified, and the County Health Visitor has visited and given advice where such appeared necessary. Through this arrangement I have from time to time received valuable information as to defective conditions discovered in the patients' homes, and steps have been taken to remedy these.

“Disinfectants and sputum bottles are supplied free through the Sanitary Inspector for cases where they are desirable. After deaths from Phthisis and after removals of phthisical patients when the circumstances require it, disinfection is carried out by the Inspector.

“The Council have purchased several shelters for the purpose of loaning to the County Insurance Committee, and wherever required by that Committee they have been used as an accessory in domiciliary benefit.”

626. As regards the Sanitary circumstances of the District, referring to water supply, Dr. TANGYE shows that with the exception of the villages of New Bilton, Newbold-on-Avon, Clifton (Vicarage Hill), Hillmorton, Brownsover, and Old Bilton, which are supplied with water from the Rugby Water Works, the rest of the District is dependent on wells, chiefly of the usual shallow type.

627. Dr. TANGYE records that a number of samples of water from wells were submitted from Marton after the outbreak of Diphtheria in that village, and the results were uniformly bad. This he thinks is due to a large extent to pollution of the subsoil, but may in some instances be due to the River affecting the wells through the stratum of gravel on which the village lies.

628. As regards the Bilton Outfall Works, the District Council have decided to improve this Outfall by the installation of an additional filter and tanks. They have also had under consideration alternative schemes for the village of Newbold-on-Avon.

629. A small Sewage Disposal Works, with tank and area for broad irrigation, has been laid out at Brownsover for dealing with sewage from the new building estate.

630. At Birdingbury, too, steps were taken to prevent nuisance from the outfall, and the matter is still receiving the attention of the Sewerage Committee.]

631. Dr. TANGYE points out that 19 villages in the District have no means of land or other treatment of their sewage, which for the most part passes into ditches and causes no particular nuisance or river pollution. He further states:—“The village of Clifton, however, must be regarded from a special standpoint with reference to river pollution, since the Avon is impounded a little more than a mile below for the purpose of water supply to the Urban District Council's Water-works. It is highly desirable that the river above the works should receive as little pollution as possible, and the Rural District Council should consider steps to protect the river in its course through their area above Rugby. There can be no doubt that an efficient disposal scheme is essential in this connection for the village of Clifton, and this is now being considered by the Sewerage Committee.

“The question of preserving the purity of the river at this point is a vital one not only for the Urban District, but also for the Rural District, since more than a third of the total population of the latter District lives in the parts supplied with water from the Urban Water Works, namely New and Old Bilton, Newbold, Clifton, Hillmorton, and Brownsover.”

632. As regards Seavenging, public scavenging is reported to be carried on in New Bilton, and also the removal of house refuse and night-soil at Newbold, Clifton, Hillmorton, and Long Lawford. Dr. TANGYE says the schemes for the last four villages were initiated during the year, and the general condition of cleanliness has already much improved in consequence.

633. In Dunchurch, too, public scavenging has been undertaken.

634. As regards Housing, the report shows that 163 houses were inspected under Section 17 of the Housing Act. Of these, 5 were found to be unfit for habitation, and in each case Closing Orders were made. It is satisfactory to note also that in 144 cases, defects discovered in houses were remedied without the making of Closing Orders.

635. Dr. TANGYE made a Special Report in November on overcrowding in the District, which is as follows :—

“ I beg to bring before your notice a very serious aspect of the housing question in the District apart from the dilapidated condition of various property which is constantly receiving the attention of the Housing Committee. I refer to over-crowding, which, as far as constant inspection has revealed, is more prevalent and serious in this District than in any part of the rest of the half of the County for which I am District Medical Officer of Health.

“ Owing to the scarcity of houses over-crowding is the nuisance above all others most difficult to discover, and most successfully hidden. At the same time a long series of cases have been brought before your notice both in my annual reports and otherwise. In some instances abatement has been obtained, though it is to be feared that such abatement is in many cases not likely to be permanent. It will be remembered that at your meeting on the 6th January last the Council declined to enforce the common lodging-house standard in certain serious cases which were reported. This standard is universally adopted by Sanitary Authorities as the minimum amount of bedroom cubic feet compatible with healthy conditions, and provides for 300 cubic feet for each adult, and 150 for each child under ten.

“ Since the beginning of the year the following cases have been investigated by your officers :—

“ (1) At Brinklow, cottage with one bedroom occupied by man and wife with seven children. Bedroom 1,580 cubic feet.

“ (2) At Brinklow, cottage with two bedrooms occupied by man and wife with ten children. Bedrooms 978 cubic feet and 723 cubic feet.

“ (3) At Long Lawford, cottage with one bedroom occupied by man and wife with six children. Bedroom 1,216 cubic feet (partitioned).

“ (4) At Dunchurch, cottage with two bedrooms occupied by man and wife with ten children. Bedrooms 1,562 and 856 cubic feet.

“ (5) At New Bilton, cottage with two bedrooms, occupied by man and wife and seven children. Bedrooms 1,106 and 839 cubic feet.

“ (6) At New Bilton, man and wife with five children lodging in two rooms of which one only is used as a bedroom. Bedroom 1,007 cubic feet.

“ The above no doubt only represents a proportion of the serious cases of overcrowding in the District, and the most unsatisfactory feature is that permanent improvement cannot be insured by your officers under present conditions, although in certain cases the want of bedroom air space is obviously undermining the health of the children.”

636. Dr. TANGYE deals with the need for housing accommodation in the District, as he has done in previous Reports, and shows that this arises to a great extent from the proximity of large engineering works at Rugby, and to a less extent at Coventry. At the same time in the strictly rural parts there is a certain demand for houses for the purely rural population. He estimates that fifty houses are required in different parts of the District, though a much larger number of houses would readily find tenants. He says :—“ This list has received favourable consideration from the Housing Committee, and I hope it will form the basis of action during the present year.”

637. He reports that no steam disinfecter is available for the District, and hopes that arrangements will be made for one to be provided during the present year.

638. The Report also contains one from the Sanitary Inspector, dealing with the various work in his Department and shows that in many respects great activity was displayed.

639. This is one of the few Districts that supplements the work of the County Staff, as suggested by the Local Government Board, in the matter of the purity of Food and Drugs, and it is stated in the report that 80 samples of Milk were submitted for analysis during the year.

VITAL STATISTICS.

Population.	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infant Mortality per 1,000 Births.
17,820	28·2	14·0	1·17	105

SOLIHULL.

640. Dr. TANGYE estimates the population as 19,660.
641. The Birth-rate is 19·3 per 1,000.
642. The corrected Death-rate for the District is 9·0 per 1,000.
643. The Infantile Death-rate is 58 per 1,000 births.
644. With reference to Water Supply, Dr. TANGYE says :—" It is a pleasure to be able to report that mains are in course of being laid by the North Warwickshire Water Company to supply the hamlet and almshouses of Temple Balsall."
645. It is also reported that the Water Supply of the Solihull and Meriden Joint Isolation Hospital at Catherine-de-Barnes is being increased by the sinking of a new deep well.
646. Referring to Sewerage, Dr. TANGYE says :—" As reported in June, 1911, it is highly desirable that Arden Road, Dorridge, should be sewered, and although this matter has again been before the Council, no steps have yet been taken."
Lugtrout Lane is also mentioned as a district which should be sewered, " to do away with a series of nuisances and the objectionable and expensive method of emptying dumb-wells by the Council's carts."
647. With reference to the Sewerage of Tanworth-in-Arden, Dr. TANGYE says :—" Whilst the sewerage of the village is very old, it appears to me capable at the present time of sufficient improvement to deal with the comparatively small volume of slop water without giving rise to nuisance, and the necessity for an expensive sewerage scheme for the village would be obviated, especially if the Council undertook the suggested scavenging scheme which is at present under the consideration of a Committee."
648. There are altogether 80 registered Cowkeepers in the District, 7 Milk Shops, and 10 persons who have milk rounds only. Two sets of new cow sheds have been built in place of dilapidated structures, and numerous other sheds have received structural improvements.
649. The Bakehouses have received constant attention and are kept in a fairly cleanly state.
650. Under the Housing Acts, 252 houses were inspected during the year, and 15 were found unfit for habitation. Of these Dr. TANGYE says :—" It was only necessary, however, to make four representations to the Council with regard to closure, namely in the cases of two cottages at Shirley, one at Tanworth, and one at Kingswood. All these were closed by the Council, as well as a cottage at Solihull, which was reported upon at the end of 1912. The remaining eleven unfit houses were either voluntarily closed by their owners or rendered habitable."
Continuing he says :—" In one instance an extremely insanitary cottage was intermittently occupied under the most miserable conditions by the tenant, for many months after 'closure.' It is highly desirable that, when the closure of premises is definitely decided upon, the provisions of the Act should be strictly observed."
Further he remarks :—" On the whole the condition of the housing of the working classes in the District is, if anything, above the average of the County generally. For the most part only the worst houses have been selected for inspection, and as far as possible inspection has at once been followed by communications to the owner as to necessary repairs, which have almost without exception been carried out on informal notice, without formal action by the Council. In this way the general housing conditions have been substantially improved throughout the District, but it is impossible to expect that the inspection of all houses under £16 per annum in rental, as required by the Regulations of 1910, can be completed for a very considerable time, unless an Assistant Inspector is provided for this purpose. The Sanitary Inspector already has his time fully occupied, and cannot do justice to more than about 250 house inspections per annum, involving as a large majority do, correspondence as to repairs, meetings with owners, and frequent re-inspections. The estimated number of houses in the District under £16 per annum in rental is 2,723, and the number completely inspected to the end of 1913, 481. Under present conditions all such houses will have been completely inspected by about the year 1921."
651. There were two cases of Diphtheria during the year, one ending fatally.
652. Sixty-two cases of Scarlet Fever were notified, and 45 were removed to the Isolation Hospital.

653. One case of Enteric was notified, imported from another District.
654. Measles was prevalent during the first half of the year, and on this account 12 schools were closed. Three deaths were recorded from this cause.
655. Sixty-two cases of Tuberculosis were notified during the year, 52 being of Phthisis, and 10 of other forms.
656. The Report states that after deaths from Phthisis, and after removals of phthisical patients, when the circumstances require it, disinfection is carried out by the Inspector and the bedding removed to the Isolation Hospital for disinfection.
657. Referring to Infant Mortality, Dr. TANGYE says:—"The Infant Mortality rate has shewn a gratifying decline in the District during recent years, and there can be no doubt that much credit is due to the present system of visiting mothers, rendered possible through the information obtained by this (the Notification of Births) Act."
658. Appended is a Report of excellent work carried out in the Department of the Sanitary Inspector.

VITAL STATISTICS.

Population.	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infant Mortality per 1,000 Births.
19,660	19.3	9.9	0.35	58

SOUTHAM.

659. Dr. TANGYE describes the District as a purely agricultural one, except in the neighbourhood of Southam, Stockton and Bishops Itchington, where Cement Works give employment to a large and increasing number of hands. At Napton there is a large brick-yard. One-fifth of the population of the entire District resides in the town of Southam.
660. As regards Vital Statistics, he shows that the Birth-rate has increased considerably, being 26.2, compared with 24.0 in the preceding year. It is the highest rate since 1908.
661. The net Death-rate of the District was also satisfactory, being only 13.0 per 1,000, somewhat below the average for recent years.
662. Coming to the causes of deaths, he says that the deaths from Tuberculosis numbered only 4, compared with 9 in the previous year, while Heart Disease, Bronchitis, Bright's Disease and Cancer account for a large proportion of the deaths.
663. As regards Infectious Diseases, 57 cases of acute infectious disease were notified during the year. Diphtheria was responsible for 15, none however proving fatal. Dr. TANGYE says:—"Close watch was kept at the Elementary Schools during their occurrence, especially at Southam and Long Itchington, and contacts showing the infection were excluded until free. The free supply of anti-toxin provided by the Council for poorer patients has been used as required."
664. Scarlet Fever was but little prevalent, 20 cases only occurring, which were scattered in time and area, and none of them proved fatal.
665. Seven cases of Typhoid Fever were recorded. Four of these occurred at Napton, where three of them proved fatal, the water supply being derived from a dirty pit fed from overflows respectively of the canal and canal-reservoir.
666. Speaking of Typhoid Fever further, Dr. TANGYE says:—"The frequent presence of this infection in the villages of the District renders the question of water supplies one of peculiar importance for the vigilance of the Council."
667. He points out that the Bacterial examinations provided by the County Council at the Birmingham University have been well taken up, and that altogether 68 swabs were sent in, namely:—Diphtheria, 49; Typhoid Fever, 10; Phthisis, 9.
668. He records, too, that on the whole the District has been free from serious outbreaks of non-notifiable infectious disease, though Schools were closed at Priors Hardwick, Harbury, Fenny Compton, Lighthorne, and Ladbrooke for Chickenpox, Measles, and Whooping Cough.

669. As regards Infant Mortality, 17 deaths occurred under one year of age, which gives an Infant Mortality rate of 65.
670. Dr. TANGYE states that the Notification of Births Act has, on the whole, been well observed, 243 of the 261 Births which occurred in the District having been notified either by doctor, midwife, or relative.
671. As regards the control over Tuberculosis, Dr. TANGYE says that 43 new cases were notified during the year, 28 being of Phthisis and 15 of other forms of the disease. He explains that disinfectants and sputum bottles were supplied free where it was necessary, and that after death from Phthisis and after removal of Phthisical patients, when the circumstances required it, disinfection was carried out by the Inspector, and necessary cleansing and whitewashing arranged.
672. He also explains that four Shelters purchased by the Council, have been loaned to the County Insurance Committee in connection with domiciliary treatment.
673. He further states :—" In a certain small number of cases of Phthisis it would appear that a predisposing cause was the dusty condition of the atmosphere in the neighbourhood of the cement works, but the influence of this condition is not marked considering the large number of persons employed in the cement industry."
674. As regards the Sanitary circumstances of the District, he first deals with Water Supply, and says :—

"A number of further analyses has shewn that extremely little improvement has since taken place in the well waters of Long Itchington, although every effort in many instances has been made by the owners of property to cleanse and protect their wells. Whilst the public scavenging has undoubtedly tended to mitigate the danger of typhoid fever from the polluted water, it would appear practically hopeless to expect a pure supply from the present shallow wells. The joint scheme for supplying a number of villages of the District, once under the consideration of a Committee since dissolved, appears to be abandoned, and failing this the only other alternative I can suggest is that of a deep bore.

"The results of such a bore at the 'Model Village' three-quarters of a mile from Long Itchington, have been extremely interesting. This bore was sunk for the purpose of supplying Messrs. Kaye's new cottages, and passes through the blue lias to a depth of 275 feet. The yield is some 26,000 gallons per 24 hours, but the water shows enormous impregnation with mineral salts, as will be seen from the following report by the County Analysts :—

"Results of Analysis expressed in parts per 100,000.

"Date of receipt of Sample—Feb. 14th, 1913.

"Description—'Messrs. Kaye and Co.'s boring, Southam.'

Free and Saline Ammonia	...	...	...	...	0.111
Organic Ammonia	...	...	...	...	0.003
Chlorine in Chlorides	...	...	...	...	4.5
Nitrogen in Nitrates and Nitrites	...	...	...	...	0
Oxygen absorbed in Four Hours at 80° F.	...	...	...	...	0.095
Total Solid Matter	...	...	...	...	314
Hardness—					
Temporary	...	...	...	...	18.0
Permanent	...	...	...	...	118.1
Total	...	...	...	...	136.1

Remarks—Slightly turbid.

"County Analysts' Laboratory, Birmingham,
March 5th, 1913.

"Dear Sir,

"We beg to hand you herewith the results of our analysis of the mineral salts contained in the water from Messrs. Kaye's boring, expressed in parts per 100,000 of the water :—

Silica	...	...	...	...	7.75
Lime	...	...	...	...	65.00
Magnesia	...	...	...	...	17.90
Soda	...	...	...	...	36.00
Sulphuric Acid	...	...	...	...	143.00
Chlorine	...	...	...	...	4.50
Carbonic Acid	...	...	...	...	10.00

"These results when combined together according to the usual chemical methods shew practically that the bulk of the solid matter consists of Sulphate of Calcium, Sulphate of Sodium, and Sulphate of Magnesium, the quantity of these respectively being 127·1, 73·5, and 35·4. These quantities are undoubtedly very large, and we are certainly of opinion that such a water, though pure organically, cannot be considered a reasonably suitable one for the constant supply of a small community. We daresay that such waters in the lias are sometimes found in use, but we are quite certain that such a large amount of mineral constituents would be detrimental to the health of many people.

"Yours faithfully,

"BOSTOCK HILL AND RIGBY,

"County Analysts."

"In spite of this unpromising report, on my suggestion, the Council decided to grant occupation certificates under the Public Health (Water) Act for a limited number of new cottages, and twenty have been occupied during the course of the year. Not the slightest ill results have been experienced from the use of this water so far, although it is said to have had a slightly aperient effect when first used. As it is organically pure it possesses the great advantage of freedom from danger as regards typhoid fever, which cannot be said of the majority of local shallow wells. An endeavour is being made to mitigate its hardness by admixture of rain-water in the storage tanks.

675. He also states that "in some instances, where other sources are impossible, a comparatively satisfactory supply can be obtained from the roof of the dwelling if the rain-water is received through a properly constructed rain-water separator. On my recommendation the Council have resolved to require this method in default of a better, and I hope that this requirement will be insisted upon in future"

676. He further deals with the Water Supply generally in the following terms:—"With regard to the various villages which have public supplies, I would emphasise the importance of maintaining the greatest cleanliness of collecting areas and reservoirs. Since the end of the year the Council have authorised the taking of bacteriological and chemical samples from all public supplies. If these should indicate pollution it will probably be due to want of attention to the works rather than to the contamination of the springs from which the supplies are derived."

677. As regards Drainage and Sewerage, Dr. TANGYE says the brooks at Fenny Compton and Long Itchington, both of which contained sludge derived from sewage, were thoroughly cleansed during the summer for a considerable distance of their course.

Also under this head he says:—"Inspection of the only two sewage disposal areas, at Southam and Stoekton respectively, has confirmed the great desirability of more systematic attention to these outfalls."

678. He also records that an extension of the sewerage system at the Banbury Road end of the town of Southam has been adopted by the Council, to deal with the sewage from this area.

679. As regards closet accommodation, he says that with a few exceptions in the larger houses the dry conservancy system obtains throughout the District. At Southam, however, there are some 90 water closets in smaller as well as larger houses. He points out that conditions will not be generally satisfactory until all the populous villages have pail closets throughout, and a public scavenging scheme to insure their regular cleansing. In this I quite concur.

680. Referring to Seavenging, he shows that the public scavenging schemes at Southam, Long Itchington and Harbury, have worked satisfactorily during the year, and have been generally appreciated.

681. He refers to this matter in relation to Napton, as follows:—

"On 2nd December I made the following report to the Council:—

'During recent inspections of the village of Napton I have found many unsatisfactory conditions in connection with the present disposal of night-soil and house refuse.

"For the most part this is removed at long intervals to the allotments, and this removal in many instances involves the temporary deposit of offensive material in the main road.

"In the higher part of the village, which cannot be supplied from the water main, there is great danger of contamination of wells from the various deposits.

"I would strongly recommend the adoption of a public scavenging scheme in this village on the same lines as those in satisfactory operation in various other villages in the district. Such a scheme would allow of the conversion of a number of insanitary ash-pit middens, now emptied yearly, into pail closets which could be emptied weekly, and would ensure the regular removal of household garbage. In this way the cleanliness of the village would be very much improved."

"The matter was considered by a meeting of ratepayers at Napton during the adjournment of its consideration by the Council, and the meeting instructed the parish representatives to vote against the scheme of the District Council. The Council, as a result, did not proceed with the scheme, but I am firmly of the opinion that it is necessary, and much regret that the Sanitary Authority, upon whom the responsibility of the sanitation of the District rests, did not proceed with a measure which has been found so valuable in three other centres of its area."

682. Speaking of Slaughter Houses, he says :—"Of the fourteen slaughter-houses the worst is one of two at Stockton. This is merely an open-fronted shed next the road, not properly drained and containing a quantity of odds and ends. Slaughtering of sheep and pigs appears to be carried out partly in the open yard and partly under the shed. Under such circumstances of course proper cleanliness is practically impossible. At Priors Marston a dark cart shed is used for a similar purpose, but apparently not to any large extent."

"On October 7th I reported as follows to the Council :—

'During my inspections of the district I have found certain instances of the use of very unsuitable premises for the purpose of slaughtering animals for human food.

'I would remind the Council that at present these premises are not subject to registration and control of bye-laws as far as this District is concerned, and I would recommend that the Council should obtain powers to regulate the use of all slaughter-houses.

'I would add that these powers are in force in all the other Rural Districts with which I am connected, and that they are quite satisfactory in operation.'

"It is satisfactory to report that the necessary Urban powers were applied for and obtained, and that steps are being taken to adopt the model bye-laws of the Local Government Board with regard to slaughter-houses.

"No meat was condemned during the year as unfit for food."

683. Housing has received very good attention. One hundred and fifty-one houses were completely inspected under the Regulations, of which 55 were at Harbury, and 40 at Long Itchington. He says :—

"The inspection of the small parish of Chesterton is now completed, and that of Long Itchington is approaching completion.

"Sixty-five of the 151 houses inspected during last year were repaired satisfactorily, 36 were in progress at the end of the year, 44 had not so far been begun, and six did not require any repairs.

"In addition to the above, repairs were completed during the year to 33 houses which had been previously inspected and were outstanding, so that altogether 98 houses were satisfactorily repaired during 1913.

"There still remain nineteen houses inspected in 1911 and 1912 which have not so far been repaired in accordance with the requirements of the Council, and although no legal proceedings have been undertaken during the past year in connection with housing, it will be necessary for the Council to take steps to secure that their requirements are more promptly obeyed.

"It has not appeared necessary to make any representation during the year to the Council with regard to closure of unfit houses. I have made altogether six such representations during previous years, and in no case has the Council made Closing Orders. The three cottages represented as unfit in 1911 were subsequently repaired under threat of closure from the Council, and the three (in one block) represented in 1912 are still vacant and unrepaired."

With regard to the adequacy of housing accommodation, he says :—"Whilst the need for housing is not so acute as in neighbouring districts, the large Cement Works naturally tend to produce a shortage in this direction, which, however, the Companies themselves to a certain extent have endeavoured to meet."

684. Much activity has been shown in building, no less than 43 cottages and two houses having been erected, while a barn at Marston Doles was converted into a farm house, making an addition of 46 dwelling houses to the district during the year. In addition, 10 cottages were in course of construction at the close of the year.
685. Instances of overcrowding are quoted. In one case, 7 people were found sleeping in two bedrooms of 1,414 cubic feet. In another, man, wife and five children, several over 10 years of age, in two bedrooms of 1,255 cubic feet. In another, man, wife, and child over 10, 5 under 10, in two bedrooms of 852 cubic feet. In another, man, wife, girl of 12, boy of 5, and 4 men lodgers in two bedrooms of 1,670 cubic feet. Several of these cases were abated.
686. Appended to the Report is one from the Sanitary Inspector, giving details of the work done in his Department of Inspection under the varied items over which the Authority exercises control, including Slaughter Houses, Factories and Workshops, Dairies, Cowsheds and Milk Shops, Lodging House, etc.

VITAL STATISTICS.

Population.	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infant Mortality per 1,000 Births.
10,010	26.2	13.0	0.5	65|||

WARWICK RURAL DISTRICT.

687. Dr. TANGYE estimates the population as 12,590.
688. The Birth-rate was 19.5.
689. The Death-rate was 9.6, and the standardised death-rate 8.6 per 1,000.
690. There were 16 deaths of Infants under one year of age, giving an Infantile Mortality of 65 per 1,000 births. Two of these deaths were due to Diarrhoea and 6 to premature birth.
691. Referring to the Sewerage of Budbrooke Barracks, Dr. TANGYE says :—" Some advance appears to be made in the new scheme of sewage disposal contemplated by the War Office. Until this scheme is installed the effluent from the present broad irrigation will continue to be unsatisfactory at times."
692. Public Scavenging is now being carried out in the villages of Whitnash and Barford.
693. Referring to the need for Scavenging and Sewage Disposal in the long row of cottages at Tile Hill Lane, just outside Coventry, Dr. TANGYE says :—" It is satisfactory to be able to state that all the recommendations were adopted, and the Council now arrange for the complete Scavenging of the houses in this area. This procedure is expensive, especially in view of the size and number of the cess-pools which have to be dealt with, and moreover the scavenging must sometimes offend the susceptibilities of such residents as have been accustomed to properly sewered Urban Districts, although I have assumed myself by personal inspection that the work is done with as little nuisance as possible. As this part of the District is growing, both sewerage and water mains will undoubtedly be necessary in the near future, but even if a sewerage scheme were undertaken at once the present scavenging scheme would be necessary during the interval until sewers were available."
694. Under the Housing Acts, 208 houses have been inspected, one was found unfit for habitation, and in one case a Closing Order was made.
695. Several cases of overcrowding are reported at New Cubbington, Rowington, Bubbenhall, Hampton-on-the-Hill. All were abated without the need of Statutory Notice.
696. Seventeen cases of Diphtheria were notified during the year ; 5 at Rowington, 2 at Whitnash, and the rest scattered over the District.
697. In a Report on the outbreak at Rowington, Dr. TANGYE says :—" The School was closed on 24th October and thoroughly cleansed, a defect in drainage being also remedied. As it appeared that the epidemic was likely to spread, I engaged a nurse on 24th October to visit every family where children showed suspicious symptoms, and to treat all the children of such families with suitable antiseptics."
698. There were three deaths registered from Diphtheria ; one at Barford, one at Lowsonford, and one at Whitnash.

699. Fifty cases of Scarlet Fever were notified during the year, and 45 were admitted to the Isolation Hospital. There were two deaths from this disease.
700. One case of Enteric was notified.
701. Measles and Whooping Cough were both epidemic during the year, four deaths being due to Measles and one to Whooping Cough.
702. Twenty-nine cases of Tuberculosis were notified; 20 of Phthisis and 9 of other forms of Tuberculosis. Eight deaths were due to Phthisis and 2 to other Tuberculous disease.
703. The Report also deals with Schools, Bakehouses, Dairies and Cowsheds and Slaughterhouses, all of which are fairly satisfactory with regard to cleanliness and sanitation.
704. Appended is a Report by the Sanitary Inspector of work carried out in his Department during the year.

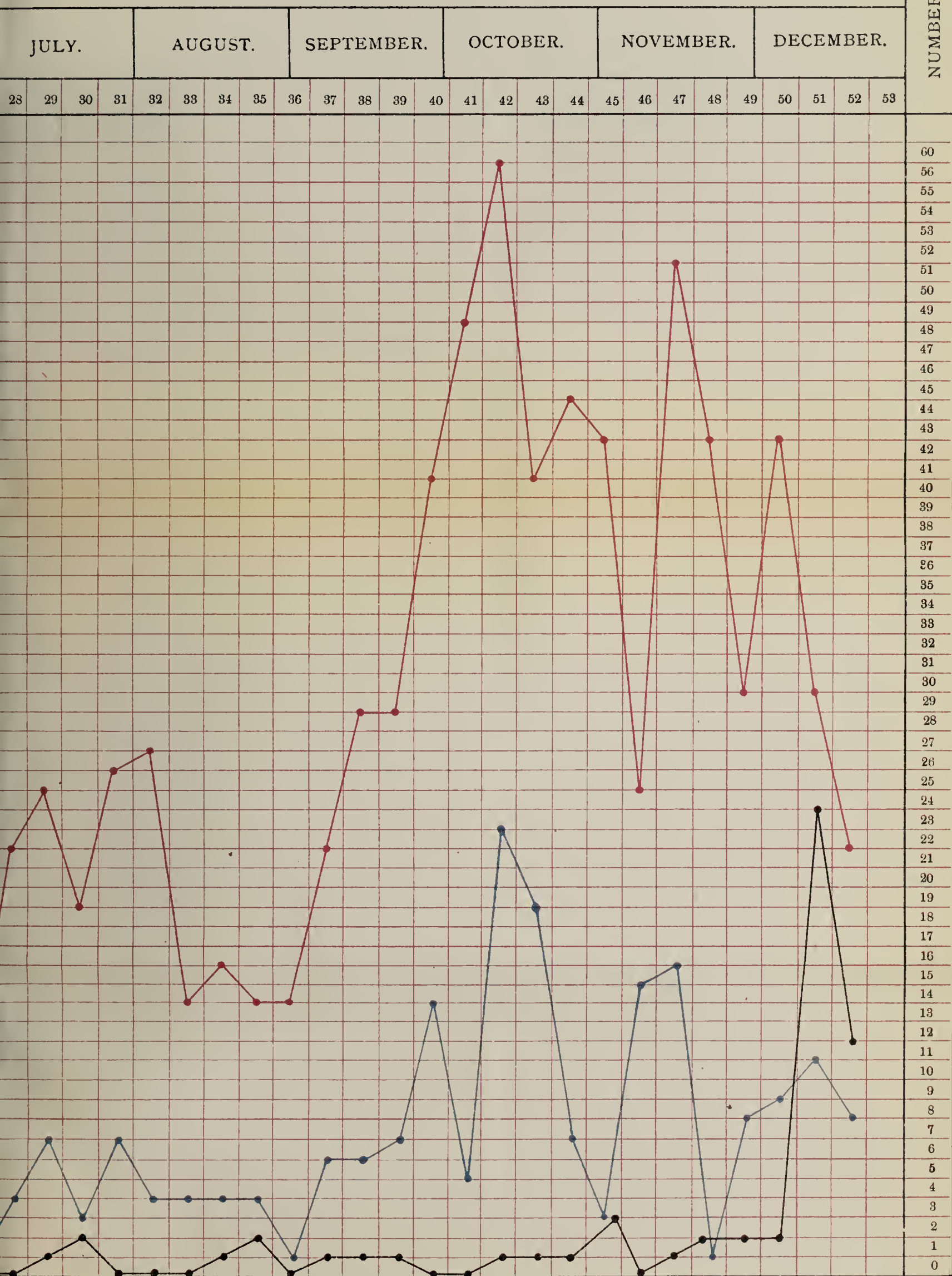
VITAL STATISTICS.

Population.	Birth-rate.	Death-rate.	Zymotic Death-rate.	Infant Mortality. per 1,000 Births
12,590	19.5	9.6	1.1	65

Chart showing the number of cases notified each week
and Typhoid Fever (black), in



of the year of Scarlet Fever (Red), Diphtheria (blue),
 e Administrative County in 1913.



B. TABLE OF DEATHS during the Year 1913, in the RURAL SANITARY DISTRICTS of the COUNTY OF WARWICK, classified according to Diseases and Ages, and shewing also the Area and Population of such Districts, and the Births therein during the Year, together with the Birth, Death and Zymotic Rates, and the Rate of Infant Mortality.

Districts.	Area in Acres.	Population per Square Mile.	Birth Rate.	Death Rate.	Zymotic Death Rate.	Infant Mortality under 1 year to Registered Births per 1,000.	Population at all Ages.		Registered Births.	Deaths at Subjoined Ages.										Mortality from Subjoined Causes.																											
							Census 1911.	Estimated of middle 1913.		All Ages.	Under 1 year.	1 and under 2.	2 and under 3.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65	65 and upwards.	Enteric Fever.	Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Influenza.	Erysipelas.	Pathists (Pulv. Tuberculosis)	Tuberculous Meningitis.	Other Tuberculous Diseases. (Cancer malignant disease).	Rheumatic Fever.	Meningitis.	Organic Heart Disease.	Bronchitis.	Pneumonia (all other forms).	Other Diseases of Respiratory Organs.	Diarrhoea and Enteritis.	Appendicitis and Typhitis.	Cirrhosis of Liver.	Alcoholism.	Nephritis and Bright's Disease.	Puerperal Fever.	Other Accidents and Diseases of Pregnancy and Parturition.	Congenital Debility and Malformation, including Premature Birth.	Violent Deaths, exclud- ing Suicides.	Suicides.	Other defined Diseases.	Diseases ill defined or unknown.
ALCESTER	37,850	200	18·87	9·85	0·5	75	11,868	11,868	224	118	17	3	2	3	7	14	21	51	..	3	..	1	1	1	13	..	212	..	2	36	1	5	..	1	..	3	..	5	..	1	10	3	..	38	..		
ATHERSTONE	21,330	600	30·50	12·1	0·5	98	19,123	20,000	610	242	60	7	4	11	8	27	49	77	..	3	1	..	1	..	12	2	917	2	2	36	13	19	..	19	1	3	3	9	..	24	17	1	47	1			
BRAILES	45,951	83	20·3	11·2	0·3	49	6,046	5,993	122	67	6	..	1	3	15	42	..	1	..	1	..	1	7	..	2	16	1	1	1	1	3	..	2	2	..	26	1			
COVENTRY	1,870	592	31·7	6·9	1·15	109	582	1,730	55	12	6	2	..	1	2	1	2	1	1	2	1	1	..	2	1	..	1	..	4		
FARNBOROUGH.. ..	9,313	102	16·18	8·09	nil	41	1,482	1,482	24	12	1	3	8	2	1	1	..	8	..					
FOLESHILL	18,837	857	34·7	13·0	1·8	99	23,009	25,088	872	346	99	24	15	15	16	36	57	84	1	8	2	7	8	2	3	15	1	4	16	2	20	39	35	1	21	2	3	..	5	3	..	46	17	1	51	31	
MERIDEN	43,091	208	19·5	13·0	0·8	121	15,400	15,680	805	204	37	5	8	18	6	21	40	69	..	4	1	2	1	2	..	9	2	7	14	1	20	8	16	2	5	2	2	1	5	2	1	17	7	3	66	2	
MONKS KIRBY	10,365	96	15·4	9·0	nil	nil	1,559	1,553	24	14	..	1	4	9	1	1	1	4	1	1	4		
NUNEATON	12,233	153	27·5	12·5	1·7	172	2,505	2,938	81	37	14	4	1	2	1	5	2	8	..	1	1	3	3	2	4	..	3	2	4	..	3	7	1	..	7	5		
RUGBY	60,531	188	28·2	14·0	1·17	105	17,353	17,820	503	250	53	14	10	8	10	19	45	91	1	7	..	2	4	4	1	13	5	2	21	..	1	27	19	18	3	7	..	2	..	4	1	1	23	10	2	70	2
SOLIHULL	41,807	301	19·3	9·9	0·35	53	18,762	19,660	379	194	22	1	4	7	6	23	38	94	..	3	..	1	1	2	14	2	6	22	..	20	9	12	4	2	1	4	..	6	2	..	9	3	1	69	1		
SOUTHAM	52,797	121	26·2	13·0	0·5	65	9,987	10,010	262	130	17	2	3	5	4	9	27	63	2	1	..	2	2	1	7	12	13	6	4	1	4	1	8	..	1	4	3	..	55	2	
STRATFORD ON-AVON	58,000	123	18·6	12·9	0·4	57	11,079	11,182	209	145	12	1	4	3	6	13	19	87	..	2	1	1	4	..	2	18	..	2	9	6	13	2	2	2	1	..	3	4	8	1	35	29	
TAMWORTH	21,700	497	23·5	10·2	0·7	68	16,036	16,859	482	172	33	4	6	15	6	22	37	49	1	..	2	1	1	..	5	1	3	19	..	5	24	13	6	3	3	1	1	1	18	9	1	54	..		
WARWICK	53,957	149	19·5	9·6	1·11	65	12,414	12,590	246	121	16	3	7	6	2	9	19	59	..	4	2	2	3	..	8	2	..	9	..	17	12	8	2	3	..	1	1	2	..	8	4	1	32	1			
TOTALS ..	502,411	222	25·21	11·77	0·92	89	167,215	174,453	4,398	2064	393	71	65	94	72	200	377	792	5	..	37	10	19	30	12	6·99	16·36	165	5	16	230	141	145	22	69	1025	552	8	5	177	85	12	557	75			

F.
TABLE OF POPULATION, BIRTHS, AND OF NEW CASES OF INFECTIOUS SICKNESS coming to the knowledge of the Medical Officers of Health during the year 1913, in the COUNTY OF WARWICK classified according to DISEASES, AGES, AND LOCALITIES.

[illegible]

G. TABLE shewing SANITARY WORK done in the INSPECTORS OF NUISANCES' DEPARTMENTS during the Year 1913, in the URBAN SANITARY DISTRICTS of the COUNTY OF WARWICK.

[illegible]

H. TABLE shewing SANITARY WORK done in the INSPECTORS OF NUISANCES' DEPARTMENTS during the Year 1913, in the RURAL SANITARY DISTRICTS of the COUNTY OF WARWICK.

[illegible]

I. RETURN, shewing the number of Births Registered, together with the number of such cases successfully Vaccinated or otherwise disposed of in the Districts of the COUNTY OF WARWICK during the year ending 30th June, 1913.

VACCINATION DISTRICTS.	No. of Births Registered during the year ending 30th June, 1913.	No. of these cases successfully Vaccinated.	Insusceptible of Vaccination.	Died before Vaccination.	Cases under Postpone-ment.	Removals to other Districts out of the Union.	No. of cases not to be found.	Number of cases remaining Unvaccinated at date of this Return.	No. of Conscien-tious Certificates.
URBAN DISTRICTS.									
Bulkington	57	14	...	5	...	...	...	1	37
Kenilworth	144	64	...	9	3	1	1	4	62
Royal Leamington Spa	435	172	...	11	2	11	4	2	233
Nuneaton	1,140	173	...	74	7	3	45	...	838
Rugby	460	58	2	28	1	2	8	14	347
Stratford-on-Avon ...	174	70	...	8	1	2	1	2	90
Sutton Coldfield ...	388	263	...	13	3	2	2	1	104
Warwick	305	194	...	21	1	...	5	...	84
RURAL DISTRICTS.									
Alcester	236	128	...	12	...	1	1	3	91
Atherstone	609	201	...	48	12	5	33	5	305
Brailes	94	43	...	1	2	2	...	1	45
Coventry	35	8	...	2	...	...	2	1	22
Farnborough	18	6	...	1	...	...	...	...	11
Foleshill	835	193	...	56	11	1	25	3	546
Meriden	285	171	...	13	14	8	11	1	67
Monks Kirby	24	5	...	1	...	2	...	...	16
Nuneaton	75	34	...	8	1	...	1	...	31
Rugby	463	83	...	36	...	2	7	13	322
Solihull	370	269	3	19	...	2	8	7	62
Southam	237	67	...	11	4	1	2	...	152
Stratford-on-Avon ...	94	64	...	5	...	2	...	...	23
Tamworth	469	250	...	21	15	1	6	7	169
Warwick	220	122	...	12	1	3	4	4	74
TOTALS ...	7,167	2,652	5	415	78	51	166	69	3,731

DETAILS OF HEALTH VISITORS' WORK.

DISTRICT	1	2	3	4	5	6	7	8	9	10	11	
	Miss Brown.	Miss Morrison	Miss Houghton.	Miss Pakes.	Miss Baker.	Miss Underwood.	Mrs. Fitz-Maurice.	Miss Hunter.	Miss Wheatle.	Miss Abbott.	Mrs. Garside.	TOTAL.
Total number of visits made ...												19,026
" " to Infants ...	310	642	1,162	1,398	950	331	509	104	316	575	298	6,665
" " to Midwives ...	56	101	177	132	158	135	42	53	103	54	86	1,097
" " to Sch. Children												
at home	561	295	904	242	1,121	688	656	439	602	656	815	6,979
" " to tuber. cases	187	141	133	204	70	125	173	22	102	132	68	1,357
Total number of Other Visits ...	168	298	293	283	213	548	239	235	286	110	255	2,928
Number of Health Talks given ...	21	14	20	13	12	11	11	8	17	7	29	162
Lectures to Midwives ...	4	...	...	...	...	...	4	...	...	6	...	14
Medical Inspections Attended ...	34	26	88	28	40	57	20	24	50	34	30	431
<i>Infants</i>												
No of Visits (1st Visits) ...	215	280	761	1,035	788	347	414	76	177	388	221	4,702
Breast Fed entirely ...	135	214	617	757	664	284	340	61	132	327	160	3,691
Breast and Artificial ...	25	15	68	150	63	21	23	5	11	22	26	429
Artificial ...	55	51	76	128	61	42	51	10	34	39	35	582
Bottle used:—												
Boat Shape ...	57	37	65	109	72	26	44	9	22	32	53	526
Long Tube ...	10	24	53	121	28	23	7	3	15	16	7	307
Comforters not used ...	81	180	396	337	375	142	297	43	101	158	104	2,214
Cot in use ...	96	70	148	182	219	87	129	22	62	84	87	1,186
Improperly Fed ...	38	18	22	26	16	15	5	...	16	2	15	173
Neglected ...	8	7	2	8	1	3	...	...	1	...	1	31
Wasting ...	5	2	1	5	7	3	5	2	4	...	4	38
<i>School Children.</i>												
Number of Visits ...	561	295	904	242	1,121	688	656	439	602	656	815	6,979
Number of Children Visited ...	1,340	84	1,369	895	1,607	1,334	986	253	269	720	2,464	11,321
Heads Ulcerated or Verminous ...	22	5	108	90	57	65	37	26	33	70	...	513
Neglected ...	10	1	23	11	22	8	5	2	38	15	10	145
Clothing unsatisfactory ...	2	...	8	7	9	10	86	...	6	17	4	149
Other Diseases ...	78	8	22	19	57	77	8	40	41	35	31	416
<i>Housing Defects.</i>												
Dirty Beds ...	...	4	13	20	23	10	4	...	9	14	13	110
Dirty Rooms ...	21	55	18	24	51	48	6	9	41	21	60	354
Dirty Closets ...	3	...	6	10	37	3	2	...	6	1	17	85
Stopped-up Drains ...	4	1	4	6	36	1	3	1	2	1	2	61
Windows not made to be opened ...	9	...	13	11	59	11	1	1	...	1	35	141
No Pantries, or Unventilated ...	8	2	37	5	83	90	...	...	14	1	19	259
Damp Houses ...	6	14	15	8	47	22	...	...	1	1	...	114
Overcrowding ...	5	6	7	11	119	15	...	...	19	6	14	202
<i>MIDWIVES.</i>												
<i>Register.</i>												
Number of Inspections ...	13	56	66	42	44	42	4	15	39	24	20	372
Satisfactory ...	12	21	17	17	20	29	3	6	11	11	9	161
Unsatisfactory ...	1	...	6	4	4	2	1	...	7	1	2	28
<i>Bag.</i>												
Satisfactory ...	13	21	16	19	19	28	10	6	14	9	8	163
Unsatisfactory ...	...	...	7	2	6	3	1	...	4	4	3	30
<i>Appliances.</i>												
Satisfactory ...	12	21	18	20	21	25	9	5	13	10	8	162
Unsatisfactory ...	1	...	5	1	4	6	...	1	5	2	3	28
Cleanliness of Midwife (Satisfactory)	11	21	20	19	16	21	8	7	15	11	10	159
Cleanliness of House (Satisfactory)	11	21	23	21	24	29	9	7	16	11	11	183

K.

SECTION 17 OF THE HOUSING ACT, 1909.

DISTRICT.	Number of Houses Inspected for purposes of Section 17 of Act, 1909.	Number of Houses found unfit for Habitation.	Number of Represent- ations made to the Local Authority with a view to the making of Closing Orders.	Number of Closing Orders made.	Number of Dwellings in which were defects in which were remedied without the making of Closing Orders.	Number of Dwellings Houses which after the making of Closing Orders were put into a fit state for human habitation and the general character of defects found to exist.
URBAN.						
Bulkington	...	14	...	...	...	...
Kenilworth	88	9	14	14	21	6
Royal Leamington Spa	317	80	9	9	...	6
Nuneaton	349	...	80	...	41	6
Rugby	668	...	...	...	219	...
Stratford-on-Avon	90	84	1	1	52	...
Sutton Coldfield	613	3	3	3	19	...
Warwick	211	16	10	10	197	6
RURAL.						
Alcester	93	46	...	...	46	...
Atherstone	307	35	22	8	234	1
Brailes	340	4	3	3	234	...
Coventry	356	...	...	...	...	...
Farnborough	56	5	...	...	25	...
Foleshill	336	6	15	15	35	...
Meriden	311	8	2	2	149	...
Monks Kirby	21	19	1	1	18	...
Nuneaton	71	2	2	2	11	...
Rugby	163	5	5	5	144	...
Solihull	252	15	4	5	134	2
Southam	151	...	...	...	98	...
Stratford-on-Avon	16	14	8	...	12	...
Tamworth	83	7	7	7	29	...
Warwick	208	1	1	1	68	...
	5,100	373	187	86	1,786	27

L. METEOROLOGICAL OBSERVATIONS taken at the Park Lodge and Council House, Sutton Coldfield, during the Year ending 31st December, 1913, by the Park Forester (MR. H. HARLOND).

Lat.: 52 deg. 33 mi. 28 sec., N, Long.: 1 deg. 49 mi. 45 sec., W.
Height of Rain Gauge above Sea Level, 370.5 feet.

MONTH.	RAINFALL.			BAROMETER.				THERMOMETERS.										SUNSHINE.		MONTH.
	Total Depth in inches.	Number of day on which rain fe l.	Greatest fall in 24 hours.	Highest Corrected Readings.		Lowest Corrected Readings.		IN SHADE.				Highest Reading in Sun.		Lowest Reading on Grass.		Hours.	Mins.			
				Inches.	Date.	Inches.	Date.	Highest Readings.		Lowest Readings.		Mean Temperature for Month.	Degrees.	Date.	Degrees.			Date.		
								Degrees.	Date.	Degrees.	Date.								Degrees.		Date.	Degrees.	Date.
Januray ...	3.80	16	0.85	30.118	9th	29.111	20th	50.0	24th	17.0	13th	37.6	69.0	27th	15.1	14th	18	January		
February ...	0.75	13	0.24	30.685	12th	29.260	28th	54.8	10th	20.5	23rd	38.7	90.0	10th	11.6	23rd	60	February		
March	4.49	19	0.76	30.342	26th	28.860	19th	55.5	30th	19.8	18th	38.3	104.0	25th	19.8	18th	117	March		
April	3.40	18	0.71	30.187	23rd	29.315	27th	63.8	25th	26.6	13th	45.2	112.6	25th	15.5	13th	96	April		
May	2.09	13	0.98	30.168	28th	29.513	4th	78.6	27th	29.4	7th	53.1	131.6	31st	25.0	7th	148	May		
June	1.51	8	0.55	30.410	14th	29.685	10th	78.5	17th	35.6	1st	56.5	127.0	5th	30.3	1st	187	June		
July.....	1.40	8	1.23	30.475	1st	29.512	6th	77.3	30th	37.5	11th	57.9	124.3	2nd	33.1	8th	96	July		
August.....	1.13	10	0.48	30.362	26th	29.835	9th	80.3	4th	36.2	5th	58.8	124.3	11th	26.5	5th	143	August		
September	1.89	13	0.54	30.460	6th	29.603	14th	76.4	28th	34.5	16th	56.4	118.0	28th	27.6	16th	118	September		
October ...	2.84	14	1.21	30.485	13th	29.214	29th	66.5	1st	27.5	25th	49.5	99.5	1st	23.0	25th	83	October		
November	2.30	17	0.55	30.402	28th	29.224	6th	56.8	18th	22.3	23rd	43.8	85.4	4th	18.4	23rd	70	November		
December...	0.63	7	0.27	30.660	20th	29.460	4th	53.0	1st	19.5	31st	44.6	63.5	1st	11.8	31st	33	December		
TOTALS...	26.29	156								MEAN FOR THE YEAR		48.4			TOTAL		1184	1		

W. A. H. CLARRY, A.M.I.C.E., Borough Surveyor.

M.

METEOROLOGY TABLE OF LEAMINGTON SPA, 1913.

Latitude 52° 18' N. Longitude 1° 30' W.

Month.	Means of Barom. 9 a.m.	AIR TEMPERATURES.										Direction of the Prevailing Wind.	RAINFALL.		SUN-SHINE.
		Means.			Absolute Temperatures.				Earth Temperature.				Inches.	Days.	
		9 a.m.	Max.	Min.	Max.	Date.	Min.	Date.	Earth Temperature.						
									At 1ft.	At 2ft.	At 4ft.				
January ...	29.72	38.9	44.6	34.4	51.0	5th & 23rd.	23.0	13th.	39.8	43.6	48.8	S.	3.31	14	35.8
February ...	29.87	38.5	46.1	33.8	56.0	9th.	26.0	23rd.	39.3	42.6	47.2	N.E., S.W., W.	0.88	10	54.1
March ...	29.62	44.0	50.3	37.0	55.0	4th & 11th.	27.0	12th & 18th.	43.3	43.7	47.2	W.	3.37	19	88.2
April ...	29.65	47.5	53.0	40.8	64.0	23rd & 24th.	28.0	13th.	48.4	47.2	48.2	S.W.	2.94	18	91.9
May ...	29.91	55.1	62.2	44.4	79.0	26th.	33.0	7th.	56.9	52.6	51.5	S.W.	2.38	17	165.8
June ...	30.18	60.2	67.0	48.4	79.0	16th.	40.0	1st & 15th.	64.9	60.6	55.4	S.W.	0.46	8	205.6
July ...	30.09	58.7	66.2	52.2	77.0	28th & 29th.	45.0	8th.	64.3	61.9	58.1	N.	1.53	12	99.3
August ...	30.09	60.4	68.9	51.1	80.0	3rd & 28th.	41.0	19th.	64.4	61.3	59.5	N.E.	0.94	11	128.6
September ...	29.94	58.4	65.3	50.3	78.0	27th.	38.0	16th.	60.1	59.1	59.6	N.E.	1.97	10	104.3
October ...	29.88	52.4	58.7	43.5	66.0	1st.	29.0	25th.	54.5	58.6	58.4	S.W.	3.29	16	87.7
November ...	29.89	46.3	53.3	39.6	58.0	2nd & 17th.	25.0	23rd.	46.5	52.2	55.1	W.	2.86	20	83.0
December ...	30.11	40.3	44.9	35.8	54.0	12th.	21.0	31st.	42.7	47.7	52.2	N.W.	1.12	10	22.4
TOTALS ...	...	...	...	...	...	...	...	...	...	...	...	...	25.05	165	1166.7
MEANS ...	29.82	50.0	56.8	42.5	80.0	3rd & 28th Aug.	21	31st December.	52.0	52.5	53.4	S.W.	...	...	...

TUBERCULOSIS REPORT, 1913.

DISTRICTS.	No. of Cases Reported.	No. of 1st Visits.	No. of Re-Visits.	No. of Insured Persons.	No. of Dependents.	Treated at Sanatoria.	Domiciliary Treatment.	Sputum Flasks Provided.	Disinfectant Provided.	Ventilation Improved.	Shelters Provided.	Neither Insured nor Dependent.	Died before Visit
I. MISS BROWN ...	66	54	133	14	18	8	15	19	31	9	6	22	5
II. " MORRISON ...	79	56	85	18		5	20	24	35	6	1	6	2
III. " HOUGHTON ...	57	54	79	29	20	15	18	5	6	4	8	6	...
IV. " PAKES ...	96	90	114	45	40	27	60	12	21	14	4	5	3
V. " BAKER ...	42	41	29	16	22	4	7	13	44	...	2	3	...
VI. " UNDERWOOD ...	93	80	45	22	35	22	5	19	38	9	3	14	...
VII. MRS. FITZMAURICE ...	98	83	90	46	33	16	14	36	36	1	...	...	...
VIII. MISS HUNTER ...	13	12	10	4	4	1	...	...	...	...	...	...	...
IX. " WHEATLEY ...	53	46	56	20	15	25	15	22	25	5	22	9	...
X. " ABBOTT ...	29	22	110	10	13	8	2	10	10	3	5	2	3
XI. MRS. GARSIDE ...	26	22	46	10	12	10	5	5	19	3	6	...	1
TOTALS ...	652	560	797	234	219	141	161	165	265	54	57	67	14

92 Cases not visited, of these 19 were not traced, 21 were in Hospital, Infirmary, Sanatoria, etc., the remainder did not desire to be visited.

O.

WARWICKSHIRE COUNTY COUNCIL.

NATIONAL INSURANCE ACT, 1911.

PREVENTION AND TREATMENT OF TUBERCULOSIS.

MEMORANDUM BY THE COUNTY MEDICAL OFFICER OF HEALTH.

- (1) By direction of your Committee I beg to hand you a Memorandum on the work to be done under the above Act, and its relation to a general scheme for the prevention and treatment of Tuberculosis in the County.
- (2) The matter has become of somewhat urgent importance, owing to the publication of the Interim Report of the Departmental Committee on Tuberculosis, and consequent on that, the issue by the Local Government Board of a circular letter on the 14th May, referring chiefly to the "Parliamentary grant for Sanatorium Purposes, Finance Act, 1911, and National Insurance Act, 1911." In that letter the Board state that it proposed to issue a Circular announcing their policy in regard to this matter some time ago, but they have deferred taking this course pending the Report of the Departmental Committee on Tuberculosis. The Committee have now issued an Interim Report. A copy of this Interim Report is enclosed, and I may state that the Board agree generally with the findings of the Committee, and commend the Report to the serious consideration of Local Authorities.
- (3) Perhaps one of the most pregnant sentences in the letter is that in which it states : "In a disease such as tuberculosis, the prevention of infection, the removal of conditions favouring infection, and the treatment of the patient, must necessarily be placed in the closest relation to each other." Moreover, as the Committee point out, any scheme which is to form the basis of any attempt to deal with the problem of tuberculosis, should be available for the whole community.
- (4) The Board also states that as a first step in formulating a scheme it suggests that the Medical Officer of Health should be asked to submit a Report stating the existing means for the treatment of tuberculosis within the County, whether in the hands of local authorities or otherwise, and his estimate on the needs of the area generally. This Report should include information as to the number of beds in existing institutions, which are or to be established for the treatment of patients suffering from Tuberculosis. In the case of a County, he will of course need to be fully acquainted with the work now being done by the Sanitary Authorities under the recent Tuberculosis Regulations or otherwise.
- (5) The next step should be the formulation of the outlines of a scheme of completely correlated administrative action against tuberculosis in the area of the authority, or for a combination of areas.
- (6) I propose first of all therefore, to deal with the existing conditions and the means available for treatment or help.
- (7) In the present County area, with a population of 301,000 in 1911, 222 deaths were registered from pulmonary tuberculosis. The number of cases existing can only be roughly estimated, because notification of the disease did not become operative until January 1st of the present year. Probably, however, if we set down the number of existing cases as 1,000, it will not be far from the mark, and this will give us some idea of the problem to be grappled with. As far as I know, at the present time there is no institution established in the County, either in the form of a sanatorium or a dispensary for the treatment of tuberculous patients, but at the same time there is no doubt whatever that a certain amount of treatment is available in certain of the smaller hospitals within the County area, notably at Rugby, Nuneaton, Leamington, and Stratford. A certain amount of treatment is also given in the Poor Law Infirmarys of the different Unions, but owing to many circumstances, this is not always satisfactory. For many years past good work has been done by many of the District Councils, in that they have disinfected houses, bedding, and clothing, after deaths from pulmonary tuberculosis have been registered, while in many instances too, disinfectants and sputum cups have been provided by local authorities, on the request of the County Health Visitors, who have discovered cases of Phthisis requiring attention.

- (8) During the year 1911, tuberculosis was made partially notifiable, in that Poor Law patients and Hospital patients were, during part of the year at least, notified to Sanitary Authorities, and on January 1st of this year, the notification of the disease became compulsory by regulations of the Local Government Board. I arranged with the District Medical Officers of Health that the work of supervision of the infected cases should be undertaken by the County Staff of Health Visitors. The majority of the cases notified to the present time, have been visited and such arrangements made as were possible in the absence of any scheme for Sanatorium or other treatment. Much good has been effected in this way. Arrangements have been made for patients in many instances to have bedrooms to themselves, and advice has been given on the most important points likely to spread the infection from the sick to the healthy in the household. Leaflets explaining in simple language what can be done, have been distributed, and these have also been explained, while in some few instances talks to mothers have been given, and also some in the Schools to elder children on the means to be taken to prevent infection. It will thus be seen that owing to the fact that in Warwickshire we have had the advantage of a Staff of Health Visitors, and also have had—speaking generally—the kindly co-operation of the District Councils and their Staffs, much has been done in the way of prevention and amelioration. The passing of the Insurance Act, however, has completely altered the aspect of affairs, and under the provisions of this Act, Sanatorium Benefit—so called—will be provided for all insured persons and in some instances for their dependants, and as this will mean that the great bulk of pulmonary tuberculosis existing falls on the insured classes, accommodation will be necessary for these, which can easily be extended to deal with the other existing cases, so that a real and successful crusade can be undertaken to prevent what is now the most wide spread and fatal of the known preventible diseases.
- (9) It is obvious on consideration that it would be false economy to deal with a large proportion of cases and to neglect the small number not coming within the Act, because being an infectious disease the scheme would lack that completeness necessary for success in that a considerable quantity of wide spread infective material would still remain, and be capable of setting up infection owing to the want of observation and control of the infecting individuals.
- (10) Coming now to the question of dealing with the problem, it is necessary to consider our local conditions, especially area and population, in relation to the recommendations of the Departmental Committee, approved as they have been by the Local Government Board. The following are the heads in the Committee's Report of a scheme which is to form the basis of an attempt to deal with the problem:—
- (1) That it should be available for the whole community.
 - (2) That those means which experience has proved to be most effective should be adopted for the PREVENTION of the disease.
 - (3) That a definite ORGANIZATION should exist for the DETECTION of the disease at the earliest possible moment.
 - (4) That within practicable limits the best methods of TREATMENT should be available for all those suffering from the disease.
 - (5) That, concurrently with the measures for prevention, detection, and treatment, provision should be made for increasing the existing knowledge of the disease, and of the methods for its prevention, detection, and cure by way of RESEARCH.
- (11) The Report proceeds to show that in County Areas, the County Council, with or without the co-operation of County Boroughs within their area, should generally be the authority to deal with the matter. This I think on the face of it is essential. When I come later to deal with details it will be obvious, I believe, that the efficient and economical working of any scheme depends upon the area being large and populous, and it will be impossible for local Sanitary Authorities to efficiently and economically deal with the subject in their own areas. The same remarks apply to the smaller County Boroughs. Unless combination occurs, there will be of necessity a good deal of overlapping and wasteful expenditure, joined to a minimum of efficiency.
- (12) In Warwickshire as it at present exists, our population is just over 300,000. Within its geographical area are two County Boroughs, namely the Cities of Birmingham and Coventry. Birmingham is situated at the extreme north-west corner, Coventry almost in the centre of the County. Birmingham, with its population of nearly a million, is self-contained, and it is a question whether or not under any circumstances advantage would accrue to Birmingham or to the County by any combination for this purpose. The case of Coventry is different. Coventry has a population of just over 100,000—too small a population for the provision of an economical and effective tuberculosis dispensary. United with the County area, however, the population will exceed 400,000, and this I think will be a very convenient size for the purposes of administration.

- (13) We now have to consider the basis of the scheme for the County on the lines recommended by the Departmental Committee for the United Kingdom. Referring to paragraph 17 of the Report, the Committee state: "The scheme which the Committee desire to recommend for the prevention, detection, and treatment of the disease is intended to complete existing public health administration in respect of tuberculosis, and is based on the establishment and equipment of two units related to the general public health and medical work carried on by the Medical Officers of Health, as described later, and working in harmony with the general practitioner. The first unit consists of the tuberculosis dispensary or an equivalent staff as set out in this report. The second unit consists of the sanatoria, hospitals, etc., in which institutional treatment is given. The precise functions of the tuberculosis dispensary are dealt with in the next succeeding section of the report. The Committee are of opinion that the tuberculosis dispensary would be the common centre for the diagnosis and for the organisation of treatment of tuberculosis in each area, at which the various bodies and persons connected with the campaign against tuberculosis will be brought together. The aim should be that no single case of tuberculosis should remain unearred for in the community, and that whatever services the scheme provides should be available for all cases of the disease. Next to the tuberculosis dispensary should stand the second unit, consisting of a system of sanatoria, Hospitals, Farm Colonies, Open-air Schools, etc. The tuberculosis dispensary should be linked up to these institutions for which it will act as a clearing house."

- (14) The functions of the tuberculosis dispensary are set out as follows:—

"In a general way, the functions of the tuberculosis dispensary should be to serve as:—

- (1) Receiving house and centre of diagnosis.
- (2) Clearing house and centre for observation.
- (3) Centre for curative treatment.
- (4) Centre for the examination of "contacts."
- (5) Centre for after-care.
- (6) Information bureau and educational centre."

- (15) The dispensary patients will be dealt with in every stage of illness, and in time, no doubt one of its most important functions will be the detection of those very early cases of the disease which give the best chance of cure by early treatment. Practically all our Dispensaries—with the exception of one in the neighbourhood of Coventry, would come under the head of Rural Dispensaries, and the conditions are very different from those existing in Urban Districts.

- (16) In Section 21 the Committee state that "they are of opinion, without committing themselves too definitely to a figure, that one tuberculosis dispensary will be required in the immediate future for every 150,000 to 200,000, or even more, of the population in an urban neighbourhood. In rural neighbourhoods where the population is scattered, it could usually only serve a smaller number. Much will, however, depend upon the character of the neighbourhood."

- (17) It is obvious at the present time, that at first, any suggestions as to the formation of Dispensary areas must be provisional, but I certainly cannot see how it will be possible to deal with the County area with less than four, which would give an average population of about 100,000 persons per dispensary. I think it likely, however, that this number will have to be increased, because it will mean in some instances considerable distance for patients to travel, but in the case of insured persons, travelling expenses may be paid by the Insurance Committees.

- (18) The second unit of the scheme is the Sanatorium. The function of this is:—

- (1) Treatment and education.
- (2) Observation until the character of treatment be ascertained.
- (3) For the use of persons with advanced disease not able to be nursed at home under conditions which will ensure the patients' comfort and the safety of those about them.

- (19) It is stated in the Committee's Report that for reasons of economy, as a rule Sanatoria should contain not less than 100 beds, but under special circumstances I have reason to believe that this will not be insisted upon. The Committee suggests as a working figure that it is advisable to provide in the immediate future one bed per 5,000 population. This would mean, therefore, that 60 beds would be required for the Administrative County area. If Coventry, however, combines with the County, the number of beds would be 80, and a Sanatorium of this size would be more economical and efficient than one with only 60 beds.

- (20) I have before stated that there is no Sanatorium at present existing in the County. It is well known, however, that as a memorial to our late King, a County Committee has been formed for the purpose of erecting a Memorial Sanatorium. A very admirable site has been obtained not far from Stratford-on-Avon, somewhat limited in area, and a sum of money has been raised—exceeding £7,000. Though the Sanatorium Committee intended only to erect in the first instance a small Sanatorium, I can see no reason why the altered conditions produced by the National Insurance Act should not allow a considerable extension, so that this Sanatorium might be made for the purposes of treatment, the County Sanatorium, and this I think might be done with advantage to both bodies, while the distinguishing memorial characteristic might be retained. The advantage of this would be that the money raised in the County would be available for the purposes of treatment and education, and that in this way the finances of the County would be benefitted and general efficiency increased.
- (21) In addition, however, to the accommodation provided, certain other hospital beds as they are termed in the Committee's Report, will have to be provided. In the first instance at least, I think this might be economically done by utilizing several of the smallpox hospitals, which for long periods are of necessity not required, for treatment of chronic cases. The advantages are that these could take cases locally, and thus these chronic, and in many instances serious cases, would not be removed too far from the ministrations of their friends.
- (22) Arrangements would also be made—probably from the tuberculous dispensaries—for loaning of shelters for suitable cases, to patients where there was room for erection in gardens, etc., and in this way a cheap and effective means of preventive and curative treatment could be established.
- (23) As regards finances, I have already referred to the utilization of the proposed Memorial Sanatorium. In addition the Local Government Board are prepared—after inquiry and approval—to adopt the financial arrangements made by the Committee, in regard to the distribution of the actual Grant under the Finance Act, 1911. For England there is about £1,000,000 available for the purpose. In their circular letter the Board state they wish to urge the great importance of Recommendation 7 of the Report, namely, that in the erecting or adapting of institutions, pretentious or extravagant buildings must be avoided. Before making the grant the Board will desire to be satisfied as to the necessities of the area, the character of the provision proposed to be made, and as to its relation to any general scheme. The question of combining with the authorities of neighbouring areas must also have received adequate consideration. Any applications for grants which are made otherwise than by the Council of a County or County Borough, should be transmitted to the Board through the Council in order that the Board may be satisfied that any proposals for providing treatment will form part of a satisfactory general scheme.
- (24) In the Report of the Departmental Committee under the head of Financial Recommendations, the Committee state—and the Local Government Board have agreed to this—that they will provide a sum not exceeding £90 per bed. If the scheme of the King Edward Memorial Committee can be altered and re-arrangements made suitable for the needs of the County, it appears to me that the sum to be obtained from the Finance Act provisions, will be sufficient to pay the whole of the capital charges for the provision of Sanatoria in the County.
- (25) As regards the Dispensaries, the Committee state that the cost should not be more than £250 to £350, and they propose to give £1 per 750 of the population, as a grant for the establishment of these institutions. I would like to point out, however, that in County areas this does not appear to me to be a fair provision. In populous County Boroughs I think the provision is fair and reasonable, but taking into consideration the much smaller population which can be dealt with at a dispensary in Rural Districts, the provision is insufficient, and I think that a representation of this fact should be made by the County Council through the County Councils' Association, or otherwise.
- (26) As regards maintenance, the Report of the Committee states that only Medical Officers of experience, at salaries of at least £500 per annum, should be appointed. In addition to these, each Dispensary will require a nurse, who, in connection with our system of County Council health visiting, should be dealt with in accord with our general County system. In other words, any Nurses required should be an increase to our County Council Staff, in order to ensure co-ordination and efficiency, and prevent overlapping.

(27) As regards the maintenance of patients, it must be remembered that Insurance Committees when they are formed, can make agreements with the insuring bodies, Sanitary Hospitals, etc., for the maintenance of insured patients, and as far as these go, no charges will fall on the County. The treatment, however, of other persons will fall on the County Rate, except perhaps in those cases where tuberculous children are dealt with at the instance of the Education Committee.

(28) It must be remembered that this memorandum is written with the idea that it is purely preliminary. It does not pretend to deal in any way with the numerous details which must come up for later and fuller consideration. It is hoped, however, that it will fulfil its functions in giving a general review of existing conditions, what is required to be done, and how it may be done, but as I have mentioned before, everything except the general principles of the scheme has been purposely omitted because many of the important details can only be discussed after the general principles of the establishment of the scheme have been settled with the various bodies interested. I would therefore suggest for your consideration the following points:—

- (1) That inquiries to be made of the Coventry City Authorities whether or not they desire to enter into combination with the County area for the purposes of the Act and of the general dealing with tuberculosis.
- (2) That a Conference be held with representatives of District Councils and their Officers at which the whole subject be discussed in order that local requirements be fully set out, and the sympathetic help of the Districts be obtained.
- (3) That negotiations be opened with the Committee of the King Edward Memorial Sanatorium Committee with the object of discussing any alterations of their scheme necessitated by the National Insurance Act, and the Report of the Departmental Committee.
- (4) That means be taken at an early date to confer with the Insurance Committees when formed, as to the carrying out of the measures necessary for ensuring Sanatorium benefit to insured persons and to other sufferers in the County.

(Signed)—A. BOSTOCK HILL,

County Medical Officer of Health.

June 5th, 1912.

P.

WARWICKSHIRE COUNTY COUNCIL.

NATIONAL INSURANCE ACT, 1911.

PREVENTION AND TREATMENT OF TUBERCULOSIS.

FURTHER REPORT BY THE COUNTY MEDICAL OFFICER OF HEALTH.

- (1) I beg to hand you herewith a further report as to the steps which in my opinion may be taken to deal with Tuberculosis in the County of Warwick in connection with the National Insurance Act, 1911.
- (2) In my Memorandum dated June 5th last, I dealt with the Act itself, the Report of the Astor Committee, and also with the Report issued by the Local Government Board. Much that I stated there, however, need not be repeated, but should be read in connection with this present report. It was not until the 6th inst. that the Local Government Board issued their Circular to County Councils, and County Boroughs, "Schemes for Institutional Treatment of Tuberculosis," and in that they definitely agreed what proportion of the expenditure would be provided by the Board.
- (3) The idea of the work to be undertaken is to deal by a complete scheme with the cure and prevention of Tuberculosis existing within the area, and although the Insurance Act only provides for dealing with people who are insured, it is very important to bear in mind that much of the money expended and the work done would be of little comparative value to the cause of Public Health, unless means were also taken to deal with other cases known to exist. The reason for this is obvious. Pulmonary Tuberculosis or Phthisis is now known, to a great extent at least, to be due to infection from infected persons, and to deal only with Insured persons and leave other sources of infection undealt with, would obviously be a proceeding both unscientific and wasteful.
- (4) In the County of Warwick a great deal has been done. The Sanitary Committee has for some time past been imbued with the importance of co-ordinating the Public Health work of the County, and has had a system of Health Visiting, the most complete at the present time in any County area. Since notification of Pulmonary Tuberculosis has been instituted, nearly all the cases have been visited, and during the present year we have hundreds of records, not only of the cases themselves, but of the conditions under which they live; and this, of course, has led not only to much ameliorative work in the provision of medical attendance, but also to the removal of many Sanitary defects which favour the spread of the disease.
- (5) On January 1st, notification of Pulmonary Tuberculosis came into force, and during the year I have arranged with the District Medical Officers to supply me with a list of the cases notified. The visiting has been chiefly in the hands of the women Health Visitors, but they have acted with the Local Sanitary Officers, and in a large number of instances provision has been made for the supply of sputum flasks and disinfectants as occasion required, while many damp, dark, and dirty houses have had defects remedied, thus making for the welfare of patients and others.
- (6) Before considering what is necessary in the way of a complete scheme, it became important to determine the facilities for treatment and prevention already existing in the County. I found that there was no Sanatorium situated within the administrative area. During the summer, however, a part of the Infectious Diseases Hospital at Tuttle Hill, Nuneaton, was converted by the Borough Council into a Sanatorium, where about 12 patients can be received. At Harbury two shelters were erected privately, while at other places shelters have been supplied, notably by the Southam District Council and one or two other bodies or private persons. The General Hospitals in the County, of which there are several, also do something, not only for cases of Pulmonary Tuberculosis, but for other cases of Tuberculosis, and in the past the work as far as it has gone has been of great value. It must be borne in mind, too, that Pulmonary Tuberculosis in persons coming under the Poor Law is dealt with by the Poor Law Guardians, and in some of the Unions very good arrangements have been made to cope with the disease among Paupers. The vast majority of patients in the County have, however, had to rely on private treatment by medical men until the last three or four months, when practically every insured person who has applied for Sanatorium benefit has received treatment, institutional or domiciliary. Such then is the condition of affairs existing at

the present time. I believe about 50 patients are under treatment by the Provisional Insurance Committee, but although every *bona-fide* person who has applied has been dealt with, the great majority of existing cases have not been officially treated. The first important step after determining the available means for treatment, is to form an estimate as far as possible of the number of cases to be treated. During the last three years I find that the number of deaths from Pulmonary Tuberculosis in the existing County area has been as follows:—in 1909, 196; in 1910, 227; and in 1911, 222. The population at the present time I provisionally estimate at about 305,000. It is, of course, impossible to tell the exact number of cases existing, because for many reasons notifications have not been made quite as they should be. It is generally agreed, however, that if we multiply the average number of deaths by four, a very fair estimate of cases will be obtained. Taking the average deaths at 220, this would give, say roughly, 900, and I think this may be reasonably taken as a fairly accurate estimate. In no district in the County is the disease especially rife, nor is the rate for Phthisis particularly high in the County. The death-rate of 1911 having been 0·77, one rather below the average of the Country as a whole. It must not be understood that provision has to be made for all these cases, some occurring in well-to-do people will be dealt with by the resources of the family, while the Poor Law will be charged with the treatment of those for whom it is responsible.

(7) I would next say a word or two on the methods to be adopted. I am afraid that in the past a very large number of sufferers have believed that under the Act they were to receive treatment for prolonged periods in institutions commonly called "Sanatoria." There can be no doubt that this has been led up to by the term used in the Act,—"*Sanatorium Benefit*,"—but the Report of the Astor Committee, and of the various Memoranda issued by the Government Departments, distinctly show that though the Sanatorium is to be an important factor in dealing with cases, it is not the most important one.

(8) In my Memorandum of June last, I discussed at length the factors of a scheme, and you may remember I pointed out that the Tuberculosis Dispensary was the most important, and was *the first unit of the scheme*, and I there stated that the functions of the Tuberculosis Dispensary were set out as follows in the Astor Committee's Report, viz:—

- (1) Receiving House and centre of diagnosis.
- (2) Clearing House, and centre for observation.
- (3) Centre for Curative Treatment.
- (4) Centre for the examination of contacts.
- (5) Centre for after-care.
- (6) Information Bureau and Educational Centre.

(9) The second unit of the scheme is the Sanatorium, and according to modern ideas, its chief function is not only treatment, but Education on the one hand, and as a means of observation for a period of patients, until the character of treatment is ascertained. In addition also, accommodation must be provided for certain advanced cases, whose hope of cure is extremely slender, but who are a danger to their relatives and friends in the condition in which they would otherwise live. The Astor Committee also suggests that provision would have to be made for a certain number of Hospital Beds, as they were termed. In addition, domiciliary treatment will also be given in the homes of the people, and this is provided for in arrangements already made under the Act.

(10) Before dealing with particulars of the scheme as applicable to the County, I would point out that in my provisional Memorandum, I suggested the advisability of the City of Coventry joining with the County Council in forming a scheme, on the ground that this would lead, as suggested in the Astor Committee's Report, to greater efficiency at a diminished cost. It is obvious that if comparatively small Bodies originate Schemes, both the capital cost and the cost of maintenance will be relatively more than if a larger Scheme be adopted for both Bodies. This I believe is equally true as regards the Dispensary as well as the Sanatorium. I have communicated with the City Medical Officer of Health for Coventry, and have discussed with him the general principles of the Scheme to be instituted, and I have reason to believe that, subject to terms being arranged, the City Council will favourably consider the proposal of joint working with the County Council.

PROPOSED SCHEME.

FIRST UNIT.—THE DISPENSARY.

- (11) Dealing first with the Tuberculosis Dispensary, one cannot help but be struck by the increased difficulty of dealing with Tuberculosis in a large County area, with a scattered population, compared with a large town, with a vast population, but a small area. I think it must be taken for granted that it should be reasonably possible for each case to be dealt with,—to be seen at all events, for many weeks, at least twice a week, at the Dispensary. It follows from this, therefore, that the Dispensaries must be in such a position that they can be easily reached by patients. In the Astor Committee's Report it was suggested that one Dispensary will be required for every 150,000 to 200,000 people or more, and this no doubt is perfectly true as regards large Cities. In a County like Warwick, however, such a Scheme could not be worked, and I have come to the conclusion that it will be desirable to have one Central Dispensary, and several Branch Dispensaries in different parts of the County. In no other way could treatment be carried out in actual practice. After consultation with Dr. SNELL, I consider that the Central Dispensary should be at Coventry, in charge of the Chief Tuberculosis Officer. This would be available not only for the 100,000 people in the city, but for several of the County areas immediately around. This will be the only Dispensary requiring a reasonably full equipment. The other Branch Dispensaries will be required, I think, at the following places:—Atherstone, Glascote, Sutton Coldfield, Solihull, Nuncaton, Leamington, Rugby, Southam, Alcester, and Stratford-on-Avon.
- (12) It will be seen that this covers the County fairly well, having regard to geographical position as well as means of communication. It will be noted that there is no branch Dispensary south of Stratford, but the number of cases to be dealt with in the Brailes Rural District is so small that I consider these can be dealt with better probably by local practitioners in consultation with one of the Tuberculosis Officers. All these Branches would be very simple in character, and at all events in the majority of instances could be held at some cottage or similar building where a couple of rooms were available.

SECOND UNIT.—THE SANATORIUM.

- (13) In my preliminary memorandum I called attention to the fact that the Astor Committee suggested that one bed should be provided for every 5,000 of the population, and that Sanatoria should not be of less size than 100 beds. The object of this latter proviso being to reduce capital expenditure and cost of maintenance. In Warwickshire on this basis we should require 60 beds, or with the addition of Coventry, 80 beds, and although this is rather below the number suggested as desirable, I am of opinion that a very good workable and reasonably cheap Sanatorium could be erected of this size. In connection with this, I may point out that there is in existence in Warwickshire a Committee formed for the purpose of raising a Memorial Sanatorium to His late Majesty King Edward VII. This Committee has collected about £7,000, and has obtained a suitable site near Stratford-on-Avon. No steps have yet been taken to erect a Sanatorium, the Committee wisely holding their hands, waiting for developments under the National Insurance Act. The idea of the Committee was to erect a small instructional Sanatorium of about 20 beds, and although the money collected would be sufficient to erect the Sanatorium, funds for maintenance have not been forthcoming, and it would seem that at the present time, owing to the provision of Sanatorium Benefit, that there may be a difficulty in securing these. It seems to me, therefore, that subject to certain conditions, it would be very desirable for this Institution—if erected—to be utilized as the Central Sanatorium for Tuberculosis work in Warwickshire. I am only suggesting this as possible, providing the Memorial character of the Institution be fully maintained, and that the management be retained in the hands of the Memorial Committee. From enquiries I have made I believe there will be no difficulty in carrying this out, but at the present time I am waiting a reply to definite questions from the Local Government Board. If arrangements can be made satisfactory to all parties, a great advantage will accrue to the County as a whole. The Memorial could still be erected, and the Institution extended to a size more economically workable, and the money raised for the purpose of dealing with Tuberculosis, utilized to the greatest advantage. In addition to this, however, it would be advisable to make arrangements with one or two of the local authorities to open their Smallpox Hospitals, on terms to be agreed upon, for the treatment of Tuberculosis patients. The Smallpox Hospital at Bramcote is admirably situated in every respect, and could accommodate from 20 to 30 patients, while, as I have before stated, accommodation now exists at Nuncaton, and I believe arrangements might be made in one or two other places in the County.
- (14) *Staff.*—The Sanatorium would, of course, be staffed as necessary. I have already referred to the appointment of a Chief Tuberculosis Officer. To work the Branch Dispensaries I think two Assistant Officers would be required, while in addition, one Nurse, would be necessary at the Central Dispensary. The work in connection with the Branch Dispensaries would be done by the present Health Visiting Staff, and in this connection I may state that the position of Warwickshire is extremely fortunate.

- (15) *Finance*.—Accurate financial estimates under existing circumstances are extremely difficult to form, but I think having regard to the information I have been able to obtain from other sources, that the following figures may be taken as reasonably accurate.

- (16) As regards Capital Expenditure, the Local Government Board have already laid down what they are prepared to do. I referred to this in paragraphs Nos. 23 to 27 in my previous Report. I may again state, however, that they have agreed to provide a sum not exceeding £90 per bed for each one in the Sanatorium, and supposing 80 beds are to be erected, this figure will reach £7,200. With the £7,000 collected by the Memorial Committee, if this suggestion comes to a head, there will be, I believe, sufficient money to erect and furnish the Central Sanatorium, so that under this head there would be no charge for Capital Expenditure on the County.

- (17) As regards the Dispensaries the matter is rather different. The Astor Committee suggest that the cost should not be more than £250 to £350 each. This, I think, should be ample for the Central Dispensary, while if rooms were rented in cottages, or in other places, for the occasional use as Branch Dispensaries, nothing would be required but a comparatively small sum for furnishing these. The Committee suggested that £1 per 750 of the population should be made as a grant for the establishment of these Institutions. This would give us a grant of about £550, but in the Report it is suggested that a much smaller population than the one they name could only be dealt with in Rural Districts, and, therefore, I think it is probable that other and better terms might be arranged.

- (18) *Annual Expenditure*.—The chief items coming under this head are as follows:—

	£
Sanatorium—80 beds at 30s. per week	6,000
Maintenance of Hospital Beds (20)	1,500
One Tuberculosis Officer (Salary)	500
Two Assistant ditto (Salary)	600
One Nurse (Salary)	100
Travelling Expenses	200
Rent, Cleaning, etc., of Tuberculosis Dispensaries	400
Tuberculin and Drugs	500
Incidentals	200
	<hr/>
	£10,000

- (19) Supposing the arrangements are made with Coventry on a population basis, the City would pay rather more than a fourth, say £2,500, leaving a net annual cost to the County of £7,500.

- (20) It is difficult to estimate the exact percentage of Insured persons in the County. If we calculate on having the average of Insured persons in Warwickshire as for the rest of the population of the country, the number of Insured will probably be 94,000. For each of these, out of the sum of 1s. 3d. provided, 8d. will be available, thus allowing 6d. for domiciliary treatment and 1d. for Working Expenses; therefore the sum available from the Insurance Committee will be £3,130, a sum insufficient to provide Sanatorium Benefit for all Insured persons. Taking this figure, however, as available, it will be seen that deducting it from £7,500, the amount for which the County Council would be responsible would be £4,370.

- (21) In their circular letter of December 6th, the Local Government Board definitely promise to pay 50 per cent. of the deficiency, and this would amount on the above estimate to £2,185, therefore the cost to the County would be a similar figure. It is obvious, however, that, looking so far ahead, many minor expenses must occur, such as printing, postage, and other matters, and I think it desirable to put down at least £600 under this head, so that the County would be responsible, for a figure which may be roughly set down as an annual expenditure of £2,500. To this must be added interest and sinking fund on moneys expended for Capital Expenditure in connection with Dispensaries, which under the terms I have suggested may be taken perhaps as £1,000 at $8\frac{1}{2}$ per cent., say £85, giving a grand total of £2,585.

- (22) If the arrangement I have suggested as possible as regards the utilization of the Memorial Sanatorium did not mature, then there would be an addition to the Capital Expenditure of about £4,000, that is supposing the cost per bed averages £150, and with Interest and Sinking Fund at $5\frac{1}{2}$ per cent., this would add another £220 to the annual expenditure.

- (23) As a set off to this increase on County Expenditure, it must be remembered that Pulmonary Tuberculosis, or Consumption, is responsible for more deaths in the County than all the other Infectious Diseases taken together, while the amount of disqualification of young adults and the loss of money thereby entailed is enormous. It is probably an under statement to say that Phthisis costs the people of the County of Warwick every year £40,000, so that it is eminently desirable if possible, if a reasonable expenditure will suffice, to do something to check the waste of human life and to promote local and national efficiency. We are content to spend very large sums annually in the isolation of Scarlet Fever, Diphtheria, and some other diseases, and knowing what we do now as to the scientific means available for the prevention of Consumption, it seems only reasonable that a scientifically based campaign should be undertaken to deal with the far greater scourge of Consumption, particularly so as a large sum of money must of necessity be spent in treating that portion of the community which comes within the scope of the National Insurance Act.
- (24) It must of necessity take some time to complete all the arrangements, but I am of opinion that much might be done by the early appointment of a Tuberculosis Officer, and I consider this Officer should be a member of the Staff of the County Medical Officer of Health, this indeed being the view expressed by the Local Government Board. This arrangement would allow of a still further co-ordination of general Sanitary work, and would prevent over-lapping and permit of the utilization of much work now being done by the Sanitary Staff. The Tuberculosis Officer would be available as Adviser to the Insurance Committee, and no doubt a grant from that Committee would be made for his services. After his appointment, he should take early steps for organising the most important units of the Scheme, namely the Dispensary and its corollary of Tuberculin treatment, and in that way carry on and complete the good work already being accomplished by the Provisional Insurance Committee.
- (25) It will be necessary, too, to enter into negotiations with the City Council of Coventry, while the views of the King Edward Memorial Committee must be ascertained.
- (26) As regards Domiciliary Treatment, County Councils are not empowered to undertake this, but the matter appears to be much simplified by the retention of 6d. out of the 1s. 3d. per Insured person for this purpose.

(Signed)—A. BOSTOCK HILL, M.Sc., M.D.,

County Medical Officer of Health.

17th December, 1912.

THE GENERAL PURPOSES COMMITTEE OF THE COUNTY COUNCIL reported on the above as follows:—

National Insurance Act, 1911.

Prevention and Treatment of Tuberculosis.

We have received and considered the County Medical Officer of Health's further report on this subject printed above. His former report is the one referred to in paragraph 4 of our report of July last. From this it appears that if the Council decide to provide sanatoria and other institutions for the treatment of Tuberculosis, and are authorised by the Local Government Board to do so, and if satisfactory arrangements can be made with Coventry, the King Edward Memorial Committee, and the County Insurance Committee, it may fairly be estimated that no capital expenditure would fall on the County rates for providing the Central Sanatorium, that the capital expenditure for providing the Central and Branch Dispensaries may be estimated at £700 to £800, and that the share of the annual expense that would fall on the County rates would be about £2,600, equal to about three-eighths of a penny in the £. We desire to draw the special attention of the Council to paragraph (3) of the report, which points out the importance of treating for tuberculosis not only insured persons but also uninsured persons, and to considerations suggested in paragraph (23) of the County Medical Officer's report showing the serious loss to the County involved from tuberculosis.

At a QUARTERLY MEETING OF THE COUNTY COUNCIL, held on the 28th January, 1913, it was resolved:—

That the Scheme for the provision of the Sanatorium and Central and Branch Dispensaries for the treatment of Tuberculosis, outlined in the County Medical Officer of Health's Report, be provisionally approved, subject to satisfactory arrangements being made with the Exchequer, the City of Coventry, the King Edward Memorial Committee, and the County Insurance Committee.

That the City of Coventry be approached with a view to their co-operating in such scheme.

That the King Edward Memorial Committee be approached with a view to an arrangement for them to provide a Sanatorium, as outlined in the report.

That Local Authorities having the accommodation be approached with a view to arrangements for the use of any Smallpox or other Hospital or building belonging to them being made available for the treatment of tuberculosis patients.

That the County Insurance Committee be approached with a view to an arrangement being made for payment of insured persons suffering from Tuberculosis and treated by or on behalf of the Council.

That, so far as is necessary to deal with any matters which in their opinion are urgent, all the powers of the Council in connection with the above be delegated to the General Purposes Committee until the next meeting of the Council, including, if necessary, power to submit a Scheme to the Local Government Board and the Insurance Commissioners.

1914.

WARWICKSHIRE COUNTY COUNCIL.

ANNUAL REPORT

OF THE

COUNTY MEDICAL OFFICER
OF HEALTH,

For the Year 1913.

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